Letex
Technology Corp.

麗太科技股份有限公司 LETEX TECHNOLOGY CORP.
25, Sec. 3, Xibin Road, Longjing Dist.,Taichung City, Taiwan
Tel:886-4-2630-7366 Fax:886-4-2630-7367
E-mail:letex.tech@msa.hinet.net
http://www.letex.com.tw

QUALITY.INNOVATION.SERVICE

OPTO ELECTRONIC COMPONENTS

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LETEX TECHNOLOGY CORP.

INTRODUCTION

Letex Technology Corp. was established in April 2001 at Wu Chi District, Taichung City, Taiwan and moved to current location in July 2014. Our continuing mission is to dedicate in and improve the production of photo DMOS relays, photo couplers, photo interrupters, and other relevant photo products. Through the strict and scrutinized research and development over 10 years, we have successfully manufactured products with excellent quality, high tech and tremendous output capability to meet the various needs from many different clients.

It's the current trend to reduce the size of electronic devices, computer systems & peripherals. At Letex Technology Corp., we pay close attention to create unique and smaller relevant photo products, especially photo DMOS relays and photo couplers. Photo DMOS relays and photo couplers are key components for a variety of applications that regulate electrical currents. The quality and safety are pushed to the extreme at Letex. Our photo DMOS relays and photo couplers are approved by the UL with UL no. E222222.

On top of that, Letex's manufacturing operations have been certified with ISO9001:2008 certification since the second half of 2009. We also expect to pass the ISO9001:2015 quality certification in the year of 2018 or 2019.

In the future, Letex will accomplish more breakthroughs, such as getting perfect IQC and pushing technological innovation, production automation, and management computerization, as well as enhancing our service networks in markets and more. Of course, Letex will continue its learning attitude and open to comments from everywhere.

Letex Technology Corp.

麗太科技電性規格表
Letex electronic characteristic table

SOP-4PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	210	1a	400	100	20Ω	
LT	211	1a	350	120	17Ω	
LT	213	1a	200	180	5Ω	
LT	214	1a	80	80	35Ω	(Low CxR)
LT	215	1a	60	400	1Ω	
LT	216	1a	20	1700	0.5Ω	
LT	216D	1a	20	5000	0.2Ω	
LT	218	1a	40	2500	0.06Ω	
LT	218D	1a	40	3500	0.05Ω	
LT	219	1a	60	800	0.3Ω	
LT	219-3	1a	60	800	0.1Ω	
LT	219-1	1a	60	1300	0.13Ω	
LT	224	1a	40	3000	0.033Ω	
LT	225	1a	100	1250	0.13Ω	
LT	227	1a	600	80	35Ω	
LT	233	1a	60	200	2Ω	
LT	235	1a	350	250	12Ω	
LT	236	1a	100	400	2Ω	
LT	237HT	1a	60	350	0.13Ω	
LT	237-1	1a	60	2500	0.06Ω	
LT	238	1a	60	500	0.8Ω	
LT	239	1a	60	500	0.8Ω	
LT	240	1a	400	120	17Ω	
LT	241	1a	250	150	9Ω	
LT	243	1a	60	125	8Ω	
LU	210	1b	400	120	20Ω	
LU	234	1b	60	500	1Ω	
LTP	1G2,1G4	8V		14uA		
LTP	1G3	12V		8uA		
LTP	2G5	16V		8uA		

SOP-8PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	310	2a	400	100	20Ω	
LT	311	2a	350	120	17Ω	
LT	311R1	2a	350	80	17Ω	(330Ω)
LT	313	2a	200	180	5Ω	
LT	314	2a	80	80	35Ω	
LT	315	2a	60	400	1Ω	
LT	316	2a	20	1700	0.5Ω	
LT	316D	2a	20	5000	0.2Ω	
LT	318	2a	40	2500	0.06Ω	
LT	318D	2a	40	3500	0.05Ω	
LT	319	2a	60	800	0.3Ω	
LT	319-1	2a	60	1300	0.13Ω	
LT	325	2a	100	1250	0.13Ω	
LT	327	2a	600	80	35Ω	
LT	333	2a	60	100	2Ω	
LT	335	2a	350	250	12Ω	
LT	337HT	2a	60	350	0.13Ω	
LT	337-1	2a	60	2000	0.06Ω	
LT	338	2a	60	400	0.8Ω	
LT	339	2a	60	500	0.8Ω	
LT	341	2a	250	150	9Ω	
LTU	315	1c	60	400	1Ω	
LTU	320	1c	400	120	20Ω	

DIP-4PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	410	1a	400	100	20Ω	
LT	411	1a	350	120	17Ω	
LT	413	1a	200	180	5Ω	
LT	414	1a	80	80	35Ω	(Low CxR)
LT	415	1a	60	400	1Ω	
LT	416	1a	20	1700	0.5Ω	
LT	418	1a	40	2500	0.06Ω	
LT	419	1a	60	1.1	0.3Ω	
LT	424	1a	40	3000	0.033Ω	
LT	425	1a	100	1250	0.13Ω	
LT	427	1a	600	80	35Ω	
LT	432	1a	400	250	8Ω	
LT	433	1a	60	200	2Ω	
LT	433	1a	60	200	2Ω	
LT	435	1a	350	250	12Ω	
LT	436	1a	100	400	2Ω	
LT	437HT	1a	60	350	0.13Ω	
LT	437	1a	60	3000	0.06Ω	
LT	438	1a	60	500	0.8Ω	
LT	439	1a	60	500	0.8Ω	
LU	410	1b	400	120	20Ω	
LU	434	1b	60	500	1Ω	

SMD-4PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	610	1a	400	100	20Ω	
LT	611	1a	350	120	17Ω	
LT	613	1a	200	180	5Ω	
LT	614	1a	80	80	35Ω	(Low CxR)
LT	615	1a	60	400	1Ω	
LT	616	1a	20	1700	0.5Ω	
LT	618	1a	40	2500	0.06Ω	
LT	619	1a	60	1.1	0.3Ω	
LT	624	1a	40	3000	0.033Ω	
LT	625	1a	100	1250	0.13Ω	
LT	627	1a	600	80	35Ω	
LT	632	1a	400	250	8Ω	
LT	633	1a	60	200	2Ω	
LT	633	1a	60	200	2Ω	
LT	635	1a	350	250	12Ω	
LT	636	1a	100	400	2Ω	
LT	637HT	1a	60	350	0.13Ω	
LT	637	1a	60	3000	0.06Ω	
LT	638	1a	60	500	0.8Ω	
LT	639	1a	60	500	0.8Ω	
LU	610	1b	400	120	20Ω	
LU	634	1b	60	500	1Ω	

DIP-6PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	810	1a	400	100	20Ω	
LT	811	1a	350	120	17Ω	
LT	813	1a	200	180	5Ω	
LT	814-M46	1a	80	90	35Ω	(Low CxR)
LT	815	1a	60	500	1Ω	
LT	815-1	1a	60	2500	0.2Ω	
LT	816	1a	20	2000	0.5Ω	
LT	818	1a	40	2500	0.06Ω	
LT	819	1a	60	1100	0.3Ω	
LT	824	1a	40	3500	0.043Ω	
LT	825	1a	100	1250	0.13Ω	
LT	827	1a	600	80	35Ω	
LT	828	1a	40	4500	0.033Ω	
LT	832	1a	400	250	8Ω	
LT	833	1a	60	200	2Ω	
LT	833	1a	60	200	2Ω	
LT	835	1a	350	250	12Ω	
LT	836	1a	100	400	2Ω	
LT	837HT	1a	60	500	0.17Ω	
LT	837	1a	60	3500	0.08Ω	
LT	838	1a	60	500	0.8Ω	
LT	839	1a	60	500	0.8Ω	
LT	891	1a	1500	20	380Ω	
LU	810	1b	400	120	20Ω	
LU	834	1b	60	500	1Ω	

SMD-6PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	910	1a	400	100	20Ω	
LT	911	1a	350	120	17Ω	
LT	913	1a	200	180	5Ω	
LT	914-M46	1a	80	90	35Ω	(Low CxR)
LT	915	1a	60	500	1Ω	
LT	915-1	1a	60	2500	0.2Ω	
LT	916	1a	20	2000	0.5Ω	
LT	918	1a	40	2500	0.06Ω	
LT	919	1a	60	1100	0.3Ω	
LT	924	1a	40	3500	0.043Ω	
LT	925	1a	100	1250	0.13Ω	
LT	927	1a	600	80	35Ω	
LT	928	1a	40	4500	0.033Ω	
LT	932	1a	400	250	8Ω	
LT	933	1a	60	200	2Ω	
LT	933	1a	60	200	2Ω	
LT	935	1a	350	250	12Ω	
LT	936	1a	100	400	2Ω	
LT	937HT	1a	60	500	0.17Ω	
LT	937	1a	60	3500	0.08Ω	
LT	938	1a	60	500	0.8Ω	
LT	939	1a	60	500	0.8Ω	
LT	991	1a	1500	20	380Ω	
LU	910	1b	400	120	20Ω	
LU	934	1b	60	500	1Ω	

DIP-8PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	510	1a	400	100	20Ω	
LT	511	1a	350	120	17Ω	
LT	513	1a	200	180	5Ω	
LT	514-M46	1a	80	80	35Ω	(Low CxR)
LT	515	1a	60	400	1Ω	
LT	516	1a	20	1700	0.5Ω	
LT	518	1a	40	2500	0.06Ω	
LT	519	1a	60	1.1	0.3Ω	
LT	524	1a	40	3000	0.033Ω	
LT	525	1a	100	1250	0.13Ω	
LT	527	1a	600	80	35Ω	
LT	532	1a	400	250	8Ω	
LT	533	1a	60	200	2Ω	
LT	533	1a	60	200	2Ω	
LT	535	1a	350	250	12Ω	
LT	536	1a	100	400	2Ω	
LT	537HT	1a	60	350	0.13Ω	
LT	537	1a	60	2500	0.06Ω	
LT	538	1a	60	500	0.8Ω	
LT	539	1a	60	500	0.8Ω	
LU	510	1b	400	120	20Ω	
LU	534	1b	60	500	1Ω	
LTU	515	1c	60	400	1Ω	
LTU	520	1c	400	120	20Ω	

SMD-8PIN

Series	Part Name	Contact	Load Voltage (V)	Load Current (mA)	On-Resistance	Rmark
LT	710	1a	400	100	20Ω	
LT	711	1a	350	120	17Ω	
LT	713	1a	200	180	5Ω	
LT	714-M46	1a	80	80	35Ω	(Low CxR)
LT	715	1a	60	400	1Ω	
LT	716	1a	20	1700	0.5Ω	
LT	718	1a	40	2500	0.06Ω	
LT	719	1a	60	1.1	0.3Ω	
LT	724	1a	40	3000	0.033Ω	
LT	725	1a	100	1250	0.13Ω	
LT	727	1a	600	80	35Ω	
LT	732	1a	400	250	8Ω	
LT	733	1a	60	200	2Ω	
LT	733	1a	60	200	2Ω	
LT	735	1a	350	250	12Ω	
LT	736	1a	100	400	2Ω	
LT	737HT	1a	60	350	0.13Ω	
LT	737	1a	60	2500	0.06Ω	
LT	738	1a	60	500	0.8Ω	
LT	739	1a	60	500	0.8Ω	
LU	710	1b	400	120	20Ω	
LU	734	1b	60	500	1Ω	
LTU	715	1c	60	400	1Ω	
LTU	720	1c	400	120	20Ω	

MEMO

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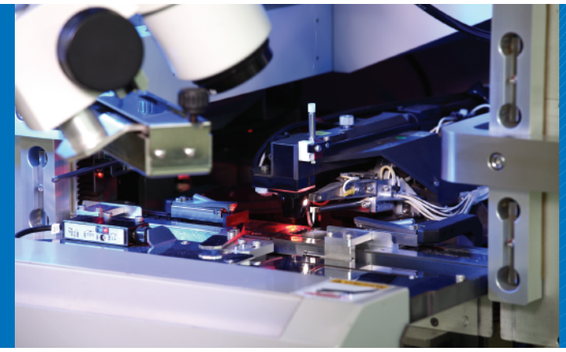

Photo DMOS Relay

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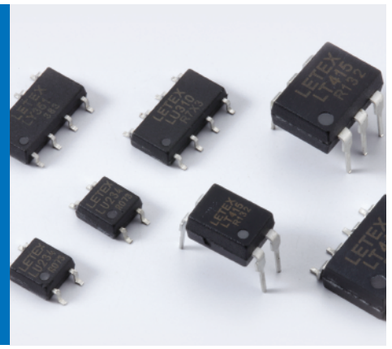
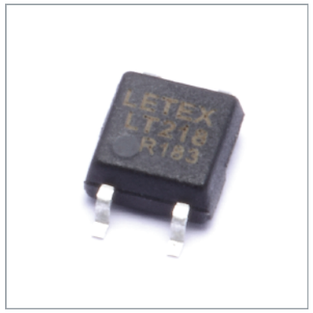


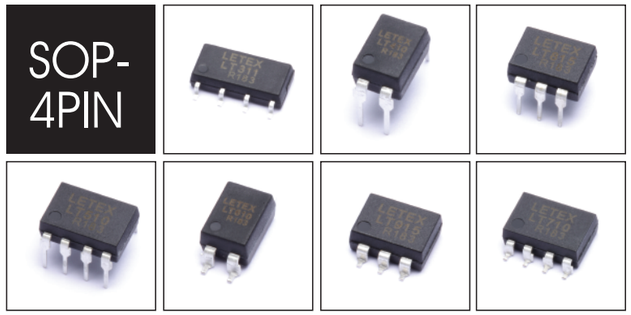
Features

- SOP package in miniature design
  - 4 pin 4.4×4.30×2.0 [.173×.169×.079]
  - 8 pin 4.4×9.40×2.0 [.173×.370×.079]
- DIP / SMD package in miniature design
  - 4 pin 6.4×4.70×3.4 [.252×.185×.134]
  - 6 pin 6.4×8.80×3.4 [.252×.346×.134]
  - 8 pin 6.4×9.78×3.4 [.252×.385×.134]
- Low driver power requirements (TTL / CMOS Compatible)
- No moving parts
- High reliability
- Arc-Free with no snubbing circuits
- I/O Breakdown Voltage
  - SOP package 1500 Vrms Input/Output isolation
  - DIP/SMD package 3750 (5000) Vrms Input/Output isolation
- Tape & Reel version available
- UL Approved No. E222222

Applications

- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipments
- Industrial controls
- Security equipment
- High speed inspection machines
- Data communication equipments
- OCU (Office channel unit) line switching
- Need to eliminate inrush and counter electromotive force
- Factory automotive equipments





SOP (1 Form A) 4-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT216	AC/DC	20	1700	0.5	1500	P.16
LT216D	DC	20	5000	0.2	1500	P.17
LT218	AC/DC	40	2500	0.06	1500	P.13
LT218D	DC	40	3500	0.05	1500	P.17
LT215	AC/DC	60	400	1	1500	P.12
LT219	AC/DC	60	800	0.3	1500	P.13
LT219-1	AC/DC	60	1300	0.13	1500	P.15
LT219-2	AC/DC	60	400	0.2	1500	P.15
LT219-3	AC/DC	60	800	0.1	1500	P.13
LT233	AC/DC	60	200	2	1500	P.13
LT238*	AC/DC	60	400	0.8	1500	P.16
LT239	AC/DC	60	500	0.8	1500	P.16
LT214*	AC/DC	80	30	20	1500	P.12
LT225	AC/DC	100	1250	0.13	1500	P.15
LT236	AC/DC	100	400	2	1500	P.14
LT213	AC/DC	200	180	5	1500	P.12
LT211	AC/DC	350	120	17	1500	P.11
LT235	AC/DC	350	250	12	1500	P.14
LT210	AC/DC	400	100	20	1500	P.11
LT232	AC/DC	400	250	8	1500	P.14
LT227	AC/DC	600	80	35	1500	P.11

Notes: 1. LT214 Low C x R 2. LT238 Low C x R

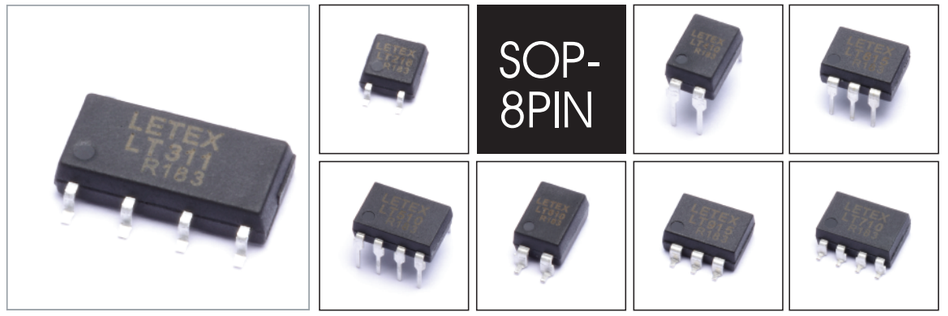
SOP (2 Form A) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT316	AC/DC	20	1700	0.5	1500	P.16
LT316D	DC	20	5000	0.2	1500	P.17
LT318	AC/DC	40	2500	0.06	1500	P.13
LT318D	DC	40	3500	0.05	1500	P.17
LT315	AC/DC	60	400	1	1500	P.12
LT319	AC/DC	60	800	0.3	1500	P.13
LT319-1	AC/DC	60	1300	0.13	1500	P.15
LT333	AC/DC	60	200	2	1500	P.13
LT338	AC/DC	60	400	0.8	1500	P.16
LT339	AC/DC	60	500	0.8	1500	P.16
LT314*	AC/DC	80	30	20	1500	P.12
LT325	AC/DC	100	1250	0.13	1500	P.15
LT336	AC/DC	100	400	2	1500	P.14
LT313	AC/DC	200	180	5	1500	P.12
LT311	AC/DC	350	120	17	1500	P.11
LT311-R1*	AC/DC	350	80	17	1500	P.11
LT335	AC/DC	350	250	12	1500	P.14
LT310	AC/DC	400	100	20	1500	P.11
LT332	AC/DC	400	250	8	1500	P.14
LT327	AC/DC	600	80	35	1500	P.11

Notes: 1. LT314 Low C x R 2. LT338 Low C x R
3. LT311-R1 = The input terminal contains a current 330Ω limiting resistor

SOP (1 Form B) 4-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU210	AC/DC	400	120	20	1500	P.18
LU234	AC/DC	60	500	1	1500	P.18

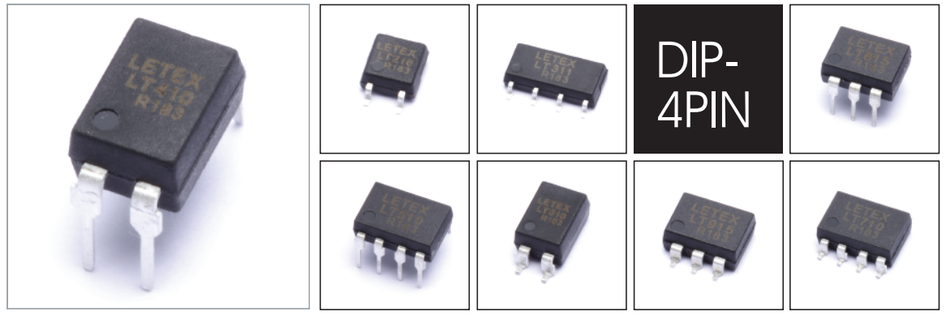


SOP (1 Form B) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU310	AC/DC	400	120	20	1500	P.18
LU334	AC/DC	60	400	1	1500	P.18

SOP (1 Form A / 1 Form B) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]		I/O Isolation Voltage Viso [V]	Page
				N.O.	N.C.		
LTU320	AC/DC	400	120	20	20	1500	P.19
LTU315	AC/DC	60	400	0.8	1	1500	P.19

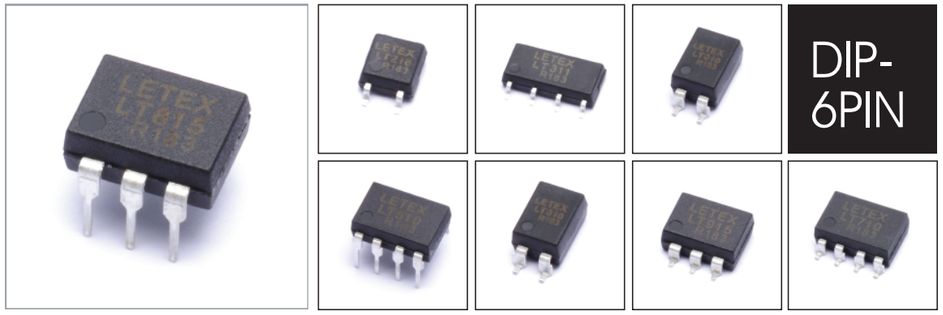


DIP (1 Form A) 4-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT418	AC/DC	40	2000	0.1	3750	P.13
LT415	AC/DC	60	400	1	3750	P.12
LT419	AC/DC	60	1100	0.7	3750	P.13
LT433	AC/DC	60	200	2	3750	P.13
LT414	AC/DC	80	120	8	3750	P.12
LT413	AC/DC	200	200	10	3750	P.12
LT411	AC/DC	350	130	17	3750	P.11
LT410	AC/DC	400	130	20	3750	P.11
LT427	AC/DC	600	80	35	3750	P.11

DIP (1 Form B) 4-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU410	AC/DC	400	120	20	3750	P.18
LU434	AC/DC	60	500	1	3750	P.18



DIP (1 Form A) 6-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT815	AC/DC	60	400	1	3750	P.12
LT819	AC/DC	60	1100	0.7	3750	P.13
LT814	AC/DC	80	120	8	3750	P.12
LT813	AC/DC	200	200	10	3750	P.12
LT811	AC/DC	350	130	17	3750	P.11
LT810	AC/DC	400	130	20	3750	P.11
LT827	AC/DC	600	80	35	3750	P.10

DIP (1 Form B) 6-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU810	AC/DC	400	120	20	3750	P.18
LU834	AC/DC	60	500	1	3750	P.18

DIP (2 Form A) 8-Pin type

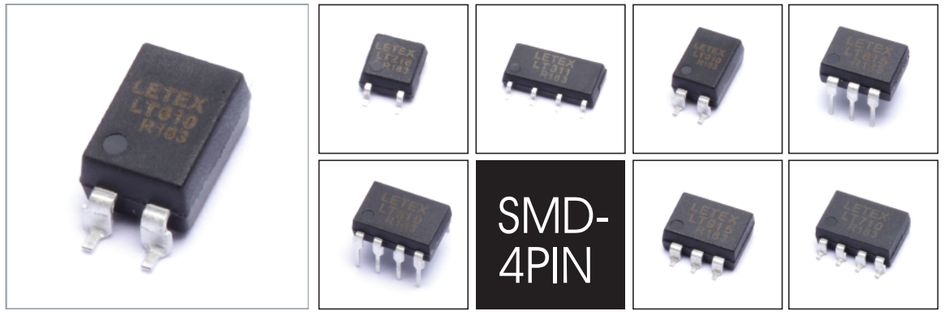
P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT518	AC/DC	40	2000	0.1	3750	P.13
LT515	AC/DC	60	400	1	3750	P.12
LT519	AC/DC	60	1100	0.7	3750	P.13
LT533	AC/DC	60	200	2	3750	P.13
LT514	AC/DC	80	120	8	3750	P.12
LT513	AC/DC	200	200	10	3750	P.12
LT511	AC/DC	350	130	17	3750	P.11
LT510	AC/DC	400	130	20	3750	P.11
LT527	AC/DC	600	80	35	3750	P.11

DIP (2 Form B) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU510	AC/DC	400	120	20	3750	P.18
LU534	AC/DC	60	500	1	3750	P.18

DIP (2 Form A /1 Form B) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]		I/O Isolation Voltage Viso [V]	Page
				N.O.	N.C.		
LTU520	AC/DC	400	120	20	20	3750	P.19
LTU515	AC/DC	60	400	0.8	1	3750	P.19

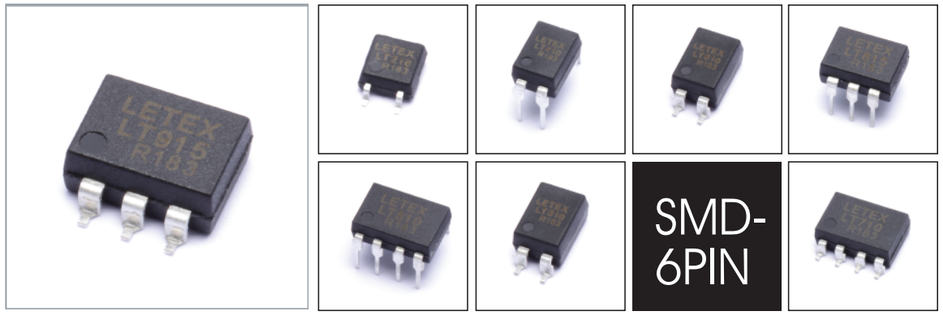


SMD (1 Form A) 4-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT618	AC/DC	40	2000	0.1	3750	P.13
LT615	AC/DC	60	400	1	3750	P.12
LT619	AC/DC	60	1100	0.7	3750	P.13
LT633	AC/DC	60	200	2	3750	P.13
LT614	AC/DC	80	120	8	3750	P.12
LT613	AC/DC	200	200	10	3750	P.12
LT611	AC/DC	350	130	17	3750	P.11
LT611-1	AC/DC	350	130	17	5000	P.11
LT610	AC/DC	400	130	20	3750	P.11
LT627	AC/DC	600	80	35	3750	P.11

DIP (1 Form B) 4-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU610	AC/DC	400	120	20	3750	P.18
LU634	AC/DC	60	500	1	3750	P.18

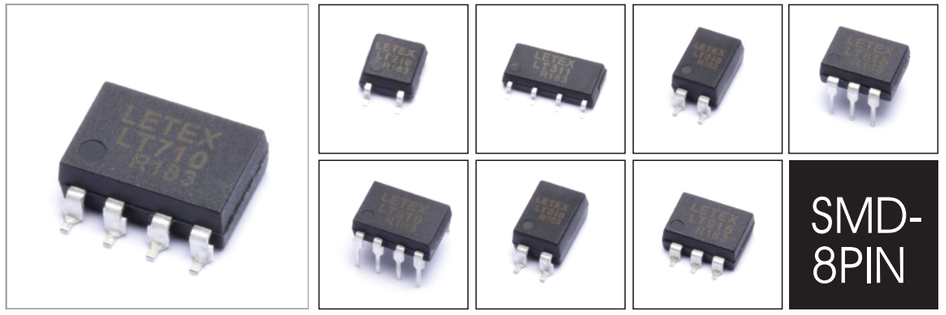


SMD (1 Form A) 6-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT915	AC/DC	60	400	1	3750	P.12
LT919	AC/DC	60	1100	0.7	3750	P.13
LT914	AC/DC	80	120	8	3750	P.12
LT913	AC/DC	200	200	10	3750	P.12
LT911	AC/DC	350	130	17	3750	P.11
LT910	AC/DC	400	130	20	3750	P.11
LT927	AC/DC	600	80	35	3750	P.10

SMD (1 Form B) 6-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU910	AC/DC	400	120	20	3750	P.18
LU934	AC/DC	60	500	1	3750	P.18



SMD (2 Form A) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LT718	AC/DC	40	2000	0.1	3750	P.13
LT715	AC/DC	60	400	1	3750	P.12
LT719	AC/DC	60	1100	0.7	3750	P.13
LT733	AC/DC	60	200	2	3750	P.13
LT714	AC/DC	80	120	8	3750	P.12
LT713	AC/DC	200	200	10	3750	P.12
LT711	AC/DC	350	130	17	3750	P.11
LT710	AC/DC	400	130	20	3750	P.11
LT727	AC/DC	600	80	35	3750	P.11

SMD (2 Form B) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]	I/O Isolation Voltage Viso [V]	Page
LU710	AC/DC	400	120	20	3750	P.18
LU734	AC/DC	60	500	1	3750	P.18

SMD (1 Form A /1 Form B) 8-Pin type

P/No.	Load	Load Voltage VL [V]	Load Current IL [mA]	On-State Resistance Ron [Ω]		I/O Isolation Voltage Viso [V]	Page
				N.O.	N.C.		
LTU720	AC/DC	400	120	20	20	3750	P.19
LTU715	AC/DC	60	400	0.8	1	3750	P.19

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT227, LT327 LT427 LT627 LT527, LT727 LT827, LT927	LT210, LT310 LT410, LT610 LT510, LT710 LT810, LT910	LT211 LT311 LT411, LT611 LT511, LT711 LT811, LT911	Note
Input	Continuous LED Current	I_F	50 mA			
	Peak LED Current	I_{FP}	1000 mA			f=100 Hz ,duty=1%
	LED Reverse Voltage	V_R	5 V			
	Input Power Dissipation	P_{in}	75 mW			
Output	Load Voltage	V_L	600 V	400 V	350 V	(AC peak or DC)
	Load Current	I_L	80 mA	100 mA	120 mA	
	Peak Load Current	Ipeak	1.0 A	0.6 A	0.6 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	450 mW	300 mW	300 mW	
Total Power Dissipation		P_T	500 mW	350 mW	350 mW	
I/O Breakdown Voltage		$V_{I/O}$	1500 Vrms ~ 5000 Vrms			RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to+85℃			
Storage Temperature		Tstg	-40℃ to+100℃			
Pin Soldering Temperature		Tsol	260℃			10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx27	LTx10	LTx11	Conditions
Input	LED Forward Voltage	V_F	TYP.	1.2 V			IF = 10mA
			MAX.	1.4 V			
	Operation LED Current	IF on	TYP.	0.5 mA			
			MAX.	3.0 mA			
	Recovery LED Current	IF off	TYP.	0.35 mA	0.35 mA	0.35 mA	
			MAX.	0.5 mA	0.5 mA	0.5 mA	
	Recovery LED Voltage	VF off	MIN.	0.5 V			
Output	On-Resistance	Ron	TYP.	35Ω	20Ω	17Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	50Ω	28Ω	24Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA			VL = Rating
	Output Capacitance	Cout	TYP.	115 pF	45 pF	41 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	0.3 ms	0.23 ms	0.23 ms	IF = 5 mA, IL = 100 mA
			MAX.	1.0 ms	0.5 ms	0.5 ms	
	Turn-Off Time	Toff	TYP.	0.02 ms	0.03 ms	0.05 ms	
			MAX.	0.2 ms	0.2 ms	0.2 ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	MIN.	10^9 Ω			DC 500 V
	I/O Capacitance	$C_{I/O}$	TYP.	0.8 pF			f = 1 MHz
			MAX.	1.5 pF			

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT213, LT313 LT413 LT613 LT513, LT713 LT813, LT913	LT214, LT314 LT414, LT614 LT514, LT714 LT814, LT914	LT215 LT315 LT415, LT615 LT515, LT715 LT815, LT915	Note
Input	Continuous LED Current	I_F	50 mA			
	Peak LED Current	I_{FP}	1000 mA			f=100 Hz ,duty=1%
	LED Reverse Voltage	V_R	5 V			
	Input Power Dissipation	P_{in}	75 mW			
Output	Load Voltage	V_L	200 V	80 V	60 V	(AC peak or DC)
	Load Current	I_L	180 mA	30 mA	400 mA	
	Peak Load Current	Ipeak	1.0 A	0.1 A	1.0 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	450 mW	250 mW	450 mW	
Total Power Dissipation		P_T	500 mW	300 mW	500 mW	
I/O Breakdown Voltage		$V_{I/O}$	1500 Vrms ~ 5000 Vrms			RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to +85℃			
Storage Temperature		Tstg	-40℃ to +100℃			
Pin Soldering Temperature		Tsol	260℃			10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx13	LTx14	LTx15	Conditions
Input	LED Forward Voltage	V_F	TYP.	1.2 V			IF = 10mA
			MAX.	1.4 V			
	Operation LED Current	IF on	TYP.	0.5 mA			
			MAX.	3.0 mA			
	Recovery LED Current	IF off	TYP.	0.35 mA	0.35 mA	0.35 mA	
			MAX.	0.5 mA	0.5 mA	0.5 mA	
	Recovery LED Voltage	VF off	MIN.	0.5 V			
Output	On-Resistance	Ron	TYP.	5 Ω	20Ω	1 Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	8 Ω	60Ω	1.4Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA			VL = Rating
	Output Capacitance	Cout	TYP.	115	6 pF	115 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	0.4 ms	0.03 ms	0.5 ms	IF = 5 mA, IL = 100 mA
			MAX.	0.8 ms	0.2 ms	0.8 ms	
	Turn-Off Time	Toff	TYP.	0.05 ms	0.05 ms	0.03 ms	
			MAX.	0.2 ms	0.2 ms	0.2 ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	MIN.	10^9 Ω			DC 500 V
	I/O Capacitance	$C_{I/O}$	TYP.	0.8 pF			f = 1 MHz
			MAX.	1.5 pF			

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT219, LT319 LT419, LT619 LT519, LT719 LT819, LT919	LT233, LT333 LT433, LT633 LT533, LT733 LT833, LT933	LT218, LT318 LT418, LT618 LT518, LT718	Note
Input	Continuous LED Current	IF	50 mA			
	Peak LED Current	IFP	1000 mA			f=100 Hz ,duty=1%
	LED Reverse Voltage	VR	5 V			
	Input Power Dissipation	PIn	75 mW			
Output	Load Voltage	VL	60 V	60 V	40 V	(AC peak or DC)
	Load Current	IL	800 mA	200 mA	2.5 A	
	Peak Load Current	Ipeak	4.0 A	1.0 A	4.0 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	380 mW	450 mW	400 mW	
Total Power Dissipation		PT	500 mW	500 mW	500 mW	
I/O Breakdown Voltage		VI/O	1500 Vrms ~ 5000 Vrms			RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to+85℃			
Storage Temperature		Tstg	-40℃ to+100℃			
Pin Soldering Temperature		Tsol	260℃			10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx19	LTx33	LTx18	Conditions
Input	LED Forward Voltage	VF	TYP.	1.2 V			IF = 10mA
			MAX.	1.4 V			
	Operation LED Current	IF on	TYP.	0.5 mA			
			MAX.	3.0 mA			
	Recovery LED Current	IF off	TYP.	0.35 mA	0.35 mA	0.35 mA	
			MAX.	0.5 mA	0.5 mA	0.5 mA	
	Recovery LED Voltage	V Foff	MIN.	0.5 V			
Output	On-Resistance	Ron	TYP.	0.3Ω	2 Ω	0.06Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	0.5Ω	8 Ω	0.1Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA			VL = Rating
	Output Capacitance	Cout	TYP.	115 pF	12 pF	150 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	1.0 ms	0.15 ms	0.8 ms	IF = 5 mA, IL = 100 mA
			MAX.	1.5 ms	0.5 ms	1.5 ms	
	Turn-Off Time	Toff	TYP.	0.08 ms	0.05 ms	0.02 ms	
			MAX.	0.2 ms	0.5 ms	0.5 ms	
Coupled	I/O Isolation Resistance	RI/O	MIN.	10^9 Ω			DC 500 V
	I/O Capacitance	CI/O	TYP.	0.8 pF			f = 1 MHz
			MAX.	1.5 pF			

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT232,LT332	LT235,LT335	LT236,LT336	Note
Input	Continuous LED Current	IF	50 mA			
	Peak LED Current	IFP	1000 mA			f=100 Hz ,duty=1%
	LED Reverse Voltage	VR	5 V			
	Input Power Dissipation	PIn	75 mW			
Output	Load Voltage	VL	400 V	350 V	100 V	(AC peak or DC)
	Load Current	IL	250 mA	250 mA	400 mA	
	Peak Load Current	Ipeak	0.8 A	0.7 A	1.0 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	135 mW	125 mW	450 mW	
Total Power Dissipation		PT	210 mW	200 mW	500 mW	
I/O Breakdown Voltage		VI/O	1500 V~5000 V			RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to+85℃			
Storage Temperature		Tstg	-40℃ to+100℃			
Pin Soldering Temperature		Tsol	260℃			10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx32	LTx35	LTx36	Conditions
Input	LED Forward Voltage	VF	TYP.	1.2 V			IF = 10mA
			MAX.	1.4 V			
	Operation LED Current	IF on	TYP.	0.5 mA			
			MAX.	3.0 mA			
	Recovery LED Current	IF off	TYP.	0.35 mA	0.35 mA	0.35 mA	
			MAX.	0.5 mA	0.5 mA	0.5 mA	
	Recovery LED Voltage	VF off	MIN.	0.5 V			
Output	On-Resistance	Ron	TYP.	8 Ω	12Ω	2 Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	15Ω	18 Ω	2.5Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA			VL = Rating
	Output Capacitance	Cout	TYP.	20 pF	330 pF	22 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	0.6 ms	0.6 ms	0.3 ms	IF = 5 mA, IL = 100 mA
			MAX.	1.0 ms	1.0 ms	0.6 ms	
	Turn-Off Time	Toff	TYP.	0.03 ms	0.03 ms	0.05 ms	
			MAX.	0.2 ms	0.2 ms	0.1 ms	
Coupled	I/O Isolation Resistance	RI/O	MIN.	10^9 Ω			DC 500 V
	I/O Capacitance	CI/O	TYP.	0.8 pF			f = 1 MHz
			MAX.	1.5 pF			

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT225 LT325	LT219-1 LT319-1	LT219-2 LT319-2	Note
Input	Continuous LED Current	I_F	50 mA			
	Peak LED Current	I_{FP}	1000 mA			f=100 Hz ,duty=1%
	LED Reverse Voltage	V_R	5 V			
	Input Power Dissipation	P_{in}	75 mW			
Output	Load Voltage	V_L	100 V	60 V	60 V	(AC peak or DC)
	Load Current	I_L	1.25 A	1.3 A	400 mA	
	Peak Load Current	Ipeak	3.0 A	4.0 A	1.0 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	350 mW	380 mW	450 mW	
Total Power Dissipation		P_T	400 mW	450 mW	500 mW	
I/O Breakdown Voltage		$V_{I/O}$	1500 Vrms			RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to+85℃			
Storage Temperature		Tstg	-40℃ to+100℃			
Pin Soldering Temperature		Tsol	260℃			10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx25	LTx19-1	LTx19-2	Conditions
Input	LED Forward Voltage	V_F	TYP.	1.2 V			IF = 10mA
			MAX.	1.4 V			
	Operation LED Current	IF on	TYP.	0.5 mA			
			MAX.	3.0 mA			
	Recovery LED Current	IF off	TYP.	0.35 mA			
			MAX.	0.5 mA			
	Recovery LED Voltage	VF off	MIN.	0.5 V			
Output	On-Resistance	Ron	TYP.	0.13 Ω	0.13 Ω	0.2 Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	0.25 Ω	0.5 Ω	0.5 Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA			VL = Rating
	Output Capacitance	Cout	TYP.	115 pF	115 pF	115 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	1.0 ms	1.0 ms	1.0 ms	IF = 5 mA, IL = 100 mA
			MAX.	2.0 ms	1.3 ms	1.3 ms	
	Turn-Off Time	Toff	TYP.	0.06 ms	0.6 ms	0.6 ms	
			MAX.	0.3 ms	0.8 ms	0.8 ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	MIN.	10^9 Ω			DC 500 V
	I/O Capacitance	$C_{I/O}$	TYP.	0.8 pF			f = 1 MHz
			MAX.	1.5 pF			

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT238 LT338	LT239 LT339	LT216 LT316	Note
Input	Continuous LED Current	I_F	50 mA			
	Peak LED Current	I_{FP}	1000 mA			f=100 Hz ,duty=1%
	LED Reverse Voltage	V_R	5 V			
	Input Power Dissipation	P_{in}	75 mW			
Output	Load Voltage	V_L	60 V	60 V	20 V	(AC peak or DC)
	Load Current	I_L	400 mA	500 mA	1.7A	
	Peak Load Current	Ipeak	1.0 A	1.0 A	35 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	300 mW	450 mW	1.8W	
Total Power Dissipation		P_T	350 mW	500 mW	2W	
I/O Breakdown Voltage		$V_{I/O}$	1500 Vrms			RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to +85℃			
Storage Temperature		Tstg	-40℃ to+100℃			
Pin Soldering Temperature		Tsol	260℃			10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx38	LTx39	LTx16	Conditions
Input	LED Forward Voltage	V_F	TYP.	1.2 V			IF = 10mA
			MAX.	1.4 V			
	Operation LED Current	IF on	TYP.	0.5 mA	0.8 mA	0.5 mA	
			MAX.	3.0 mA	2.0 mA	2.0 mA	
	Recovery LED Current	IF off	TYP.	0.35 mA			
			MAX.	0.5 mA			
	Recovery LED Voltage	VF off	MIN.	0.5 V			
Output	On-Resistance	Ron	TYP.	0.8Ω	0.8Ω	0.5Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	1.5Ω	2Ω	1.2Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA			VL = Rating
	Output Capacitance	Cout	TYP.	28 pF	28 pF	500 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	0.25 ms	0.35 ms	0.5 ms	IF = 5 mA, IL = 100 mA
			MAX.	0.35 ms	0.5 ms	1.5 ms	
	Turn-Off Time	Toff	TYP.	0.02 ms	0.2 ms	0.03 ms	
			MAX.	0.05 ms	0.3 ms	0.1 ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	MIN.	10^9Ω			DC 500 V
	I/O Capacitance	$C_{I/O}$	TYP.	0.8 pF			f = 1 MHz
			MAX.	1.5 pF			

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LT218D L3T18D	LT216D LT316D	Note
Input	Continuous LED Current	IF	50 mA		
	Peak LED Current	IFP	1000 mA		f=100 Hz ,duty=1%
	LED Reverse Voltage	VR	5 V		
	Input Power Dissipation	PIn	75 mW		
Output	Load Voltage	VL	40 V	20 V	(AC peak or DC)
	Load Current	IL	3.5 A	5 A	
	Peak Load Current	Ipeak	5 A	35 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	400 mW	1.8W	
Total Power Dissipation		PT	600 mW	2W	
I/O Breakdown Voltage		VI/O	1500 Vrms		RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to +85℃		
Storage Temperature		Tstg	-40℃ to +100℃		
Pin Soldering Temperature		Tsol	260℃		10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTx18D	LTx16D	Conditions
Input	LED Forward Voltage	V F	TYP.	1.2 V		IF = 10mA
			MAX.	1.4 V		
	Operation LED Current	IF on	TYP.	0.5 mA		
			MAX.	2.0 mA		
	Recovery LED Current	IF off	TYP.	0.35 mA		
			MAX.	0.5 mA		
	Recovery LED Voltage	VF off	MIN.	0.5 V		
Output	On-Resistance	R on	TYP.	0.05Ω	0.2Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	0.08Ω	0.5Ω	
	Off-State Leakage Current	I Leak	MAX.	1 uA		VL = Rating
	Output Capacitance	C out	TYP.	240 pF	500 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	T on	TYP.	0.4 ms	0.5 ms	IF = 5 mA, IL = 100 mA
			MAX.	0.8 ms	1.5 ms	
	Turn-Off Time	T off	TYP.	0.03 ms	0.03 ms	
			MAX.	0.05 ms	0.1 ms	
Coupled	I/O Isolation Resistance	R I/O	MIN.	10^9 Ω		DC 500 V
	I/O Capacitance	C I/O	TYP.	0.8 pF		f = 1 MHz
			MAX.	1.5 pF		

Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LU210, LU310 LU410, LU610 LU510, LU710 LU810, LU910	LU234, LU334 LU434, LU634 LU534, LU727 LU834, LU934	Note
Input	Continuous LED Current	IF	50 mA		
	Peak LED Current	IFP	1000 mA		f=100 Hz ,duty=1%
	LED Reverse Voltage	VR	5 V		
	Input Power Dissipation	PIn	75 mW		
Output	Load Voltage	VL	400 V	60 V	(AC peak or DC)
	Load Current	IL	120 mA	500 mA	
	Peak Load Current	Ipeak	0.3 A	0.6 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	500 mW	300 mW	
Total Power Dissipation		PT	550 mW	350 mW	
I/O Breakdown Voltage		VI/O	1500 Vrms ~5000 Vrms		RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to +85℃		
Storage Temperature		Tstg	-40℃ to +100℃		
Pin Soldering Temperature		Tsol	260℃		10 sec max .

Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LUx10	LUx34	Conditions
Input	LED Forward Voltage	VF	TYP.	1.2 V		IF = 10mA
			MAX.	1.4 V		
	Operation LED Current	IF on	TYP.	0.5 mA		
			MAX.	3.0 mA		
	Recovery LED Current	IF off	TYP.	0.35 mA	0.4 mA	
			MIN.	0.1 mA	0.1 mA	
	Recovery LED Voltage	VF off	MIN.	0.5 V		
Output	On-Resistance	Ron	TYP.	20Ω	0.8Ω	IF = 5 mA,IL=100 mA , Within 1 sec on time
			MAX.	50Ω	1.5Ω	
	Off-State Leakage Current	ILeak	MAX.	1 uA		VL = Rating
	Output Capacitance	Cout	TYP.	165 pF	165 pF	VL = 0 , f = 1 MHz
Transmission	Turn-On Time	Ton	TYP.	0.02 ms	0.5 ms	IF = 5 mA, IL = 100 mA
			MAX.	1.0 ms	1.0 ms	
	Turn-Off Time	Toff	TYP.	0.5 ms	0.25 ms	
			MAX.	3.0 ms	2.0 ms	
Coupled	I/O Isolation Resistance	RI/O	MIN.	10^9 Ω		DC 500 V
	I/O Capacitance	CI/O	TYP.	0.8 pF		f = 1 MHz
			MAX.	1.5 pF		

Photo DMOS Relay Specifications

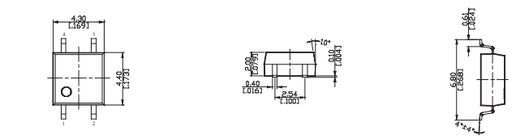
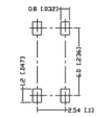
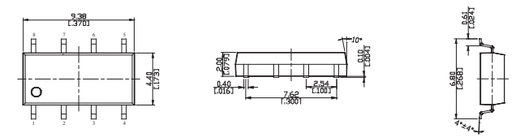
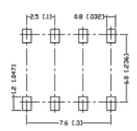
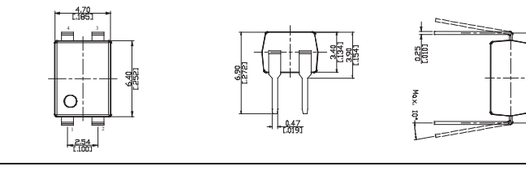
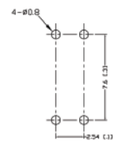
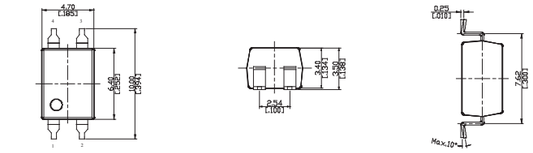
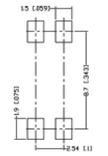
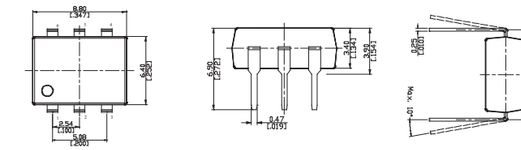
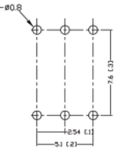
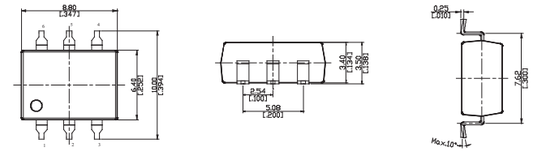
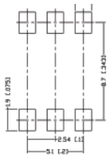
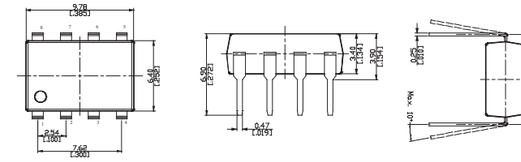
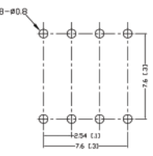
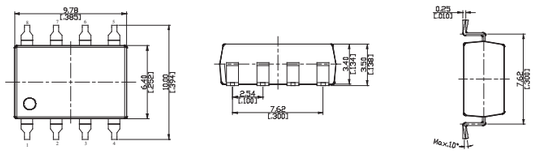
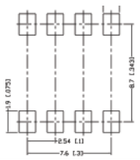
Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LTU320 LTU520 LTU720	LTU315 LTU515 LTU715	Note
Input	Continuous LED Current	IF	50 mA		
	Peak LED Current	IFP	1000 mA		f=100 Hz ,duty=1%
	LED Reverse Voltage	VR	5 V		
	Input Power Dissipation	PIn	75 mW		
Output	Load Voltage	VL	400 V	60 V	(AC peak or DC)
	Load Current	IL	120 mA	400 mA	
	Peak Load Current	Ipeak	0.6 A	1.0 A	100 ms (1 pulse)
	Output Power Dissipation	Pout	450 mW	450 mW	
Total Power Dissipation		PT	500 mW	500 mW	
I/O Breakdown Voltage		VI/O	1500 Vrms ~5000 Vrms		RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to +85℃		
Storage Temperature		Tstg	-40℃ to+100℃		
Pin Soldering Temperature		Tsol	260℃		10 sec max .

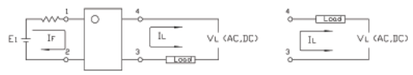
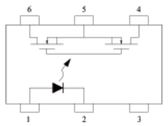
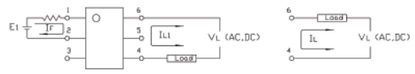
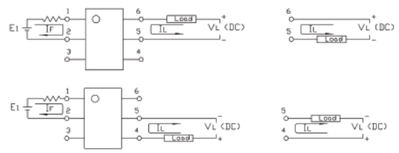
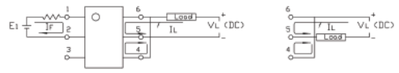
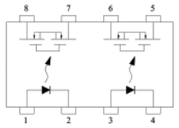
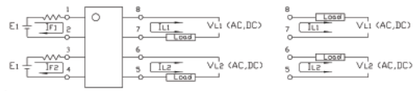
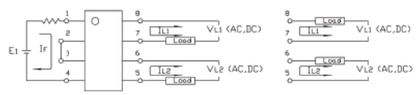
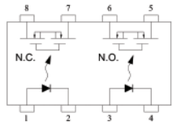
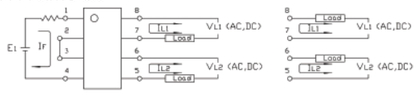
Electrical Specifications (Ambient Temperature: 25℃)

	Item	Symbol		LTUx20	LTUx15	Conditions
Input	LED Forward Voltage	VF	TYP.	1.2 V		IF = 10mA
			MAX.	1.4 V		
	Operation LED Current	IF on	TYP.	0.5 mA		
			MAX.	3.0 mA		
	Recovery LED Current	IF off	TYP.	0.35 mA		
			MAX.	0.5 mA		
	Recovery LED Voltage	VF off	MIN.	0.5 V		
Output	On-Resistance	Ron	TYP.	20 Ω	1Ω(N.O),1Ω(N.C)	IF = 5 mA,IL=100 mA Within 1 sec on time
			MAX.	50 Ω	1.4Ω(N.O),3Ω(N.C)	
	Off-State Leakage Current	ILeak	MAX.	1 uA		VL = Rating
	Output Capacitance	Cout	TYP.	165 pF	165 pF	VL = 0 , f =1MHz
Transmission	Turn-On Time	Ton	TYP.	0.23ms(N.O.) 0.02ms(N.C.)	0.23ms(N.O.) 0.02ms(N.C.)	IF = 5 mA, IL = 100 mA
			MAX.	0.5ms(N.O.) 1.0ms(N.C.)	0.5ms(N.O.) 1.0ms(N.C.)	
	Turn-Off Time	Toff	TYP.	0.03ms(N.O.) 0.5ms(N.C.)	0.03ms(N.O.) 0.5ms(N.C.)	
			MAX.	0.2ms(N.O.) 3.0ms(N.C.)	0.2ms(N.O.) 3.0ms(N.C.)	
Coupled	I/O Isolation Resistance	RI/O	MIN.	10^9Ω		DC 500 V
	I/O Capacitance	CI/O	TYP.	0.8 pF		f = 1 MHz
			MAX.	1.5 pF		

Outline Dimensions & PCB Layout

Package	Dimensions	PCB Layout
SOP 4		
SOP 8		
DIP 4		
SMD 4		
DIP 6		
SMD 6		
DIP 8		
SMD 8		

Schematic and Wiring Diagram

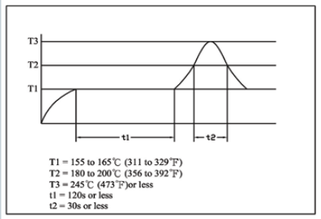
Type	Contact form	Load		Wiring diagram
	1a (1b)	AC/DC		
	1a (1b)	A	AC/DC	
		B	DC	
		C	DC	
	2a (2b)	AC/DC		(1) Two independent 1 Form A use  (2) 2 Form A use 
	1a1b	AC/DC		(1) Two independent 1 Form A & 1 Form B use  (2) 1 Form A 1 Form B use 

Notes:

1. E1: Power source at input side, IF: LED forward current, VL: Load voltage, IL: Load current, R: Current limit resistor.
2. Method connecting the load at the output are divided into 3 types

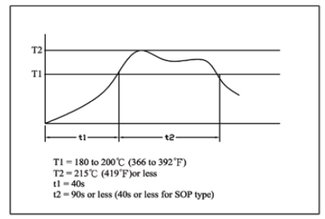
Soldering

(1)IR(infrared reflow)soldering method



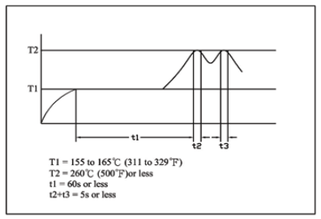
T1 = 155 to 165℃ (311 to 329°F)
T2 = 180 to 200℃ (356 to 392°F)
T3 = 245℃ (473°F)or less
t1 = 120s or less
t2 = 30s or less

(2)Vapor phase soldering method



T1 = 180 to 200℃ (366 to 392°F)
T2 = 215℃ (419°F)or less
t1 = 40s
t2 = 90s or less (40s or less for SOP type)

(3)Double wave soldering method



T1 = 155 to 165℃ (311 to 329°F)
T2 = 260℃ (500°F)or less
t1 = 60s or less
t2+t3 = 5s or less

Notes:

1. When soldering PC board terminals, keep soldering time to within 10 s at 260℃ (500°F)
2. When soldering surface-mount terminals, the following conditions are recommended.
3. Soldering iron method

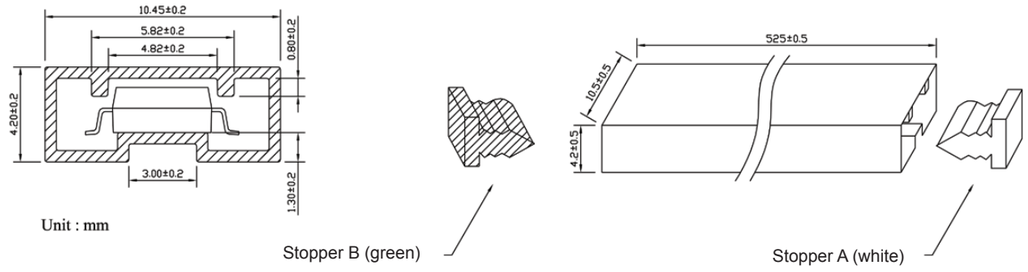
   Tip temperature:280 to 300℃(536 to 572°F)

   Wattage:30 to 60 W

   Soldering time:within 5 s

Taping Specifications for surface Mount Devices

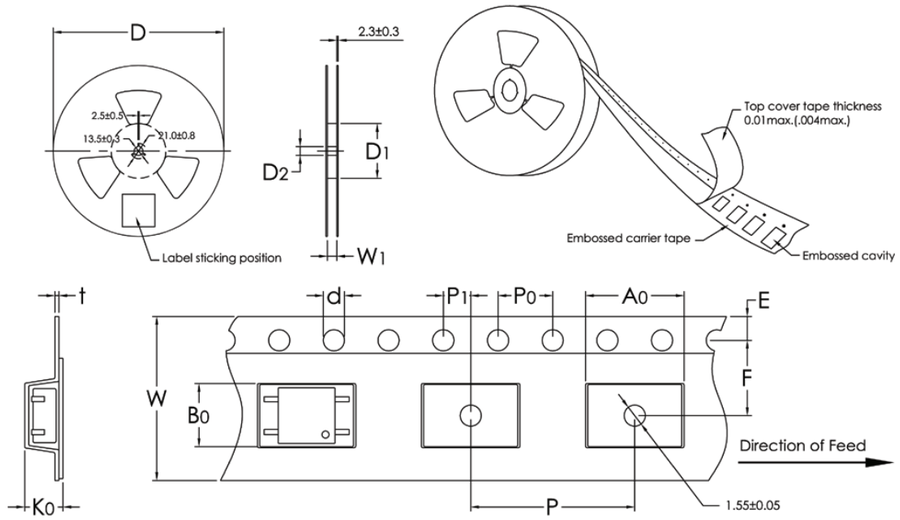
Tube Pin 1 is on the stopper B (green) side



Package Type	Quantity
SOP 4 pin	100 pcs
SOP 8 pin	50 pcs
DIP 4 pin/ SMD 4pin	97 pcs
DIP 6 pin/ SMD 6pin	50 pcs
DIP 8 pin/ SMD 8pin	45 pcs

Taping Specifications for Surface Mount Devices

Tape and Reel



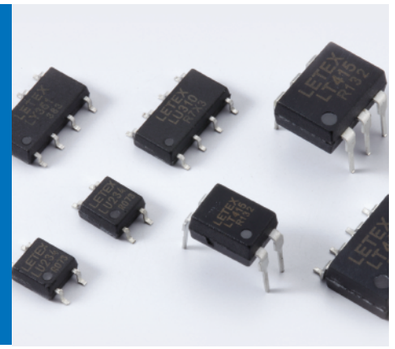
Product	SOP-4pin		SOP-8pin		SMD-4pin		SMD-6pin		SMD-8pin	
Packaging	2000pcs / Reel		1000pcs / Reel		1000pcs / Reel		1000pcs / Reel		1000pcs / Reel	
Symbol	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH
Tape Size	12.0	.472	16.0	.630	16.0	.630	16.0	.630	24.0	.944
A0	7.20±0.10	.283±.004	7.20±0.10	.283±.004	10.6±0.10	.417±.004	10.6±0.10	.417±.004	10.6±0.10	.417±.004
B0	4.80±0.10	.189±.004	9.80±0.10	.386±.004	5.30±0.10	.208±.004	9.40±0.10	.37±.004	10.3±0.10	.405±.004
d	1.55±0.05	.061±.002	1.55±0.05	.061±.002	1.55±0.05	.061±.002	1.55±0.05	.061±.002	1.55±0.05	.061±.002
D	330.0±2.0	13.0±.079	330.0±2.0	13.0±.079	330.0±2.0	13.0±.079	330.0±2.0	13.0±.079	330.0±2.0	13.0±.079
D1	99.5±1.0	3.92±.039	99.5±1.0	3.92±.039	99.5±1.0	3.92±.039	99.5±1.0	3.92±.039	99.5±1.0	3.92±.039
D2	13.5±0.30	.531±.012	13.5±0.30	.531±.012	13.5±0.30	.531±.012	13.5±0.30	.531±.012	13.5±0.30	.531±.012
E	1.75±0.05	.069±.002	1.75±0.05	.069±.002	1.75±0.05	.069±.002	1.75±0.05	.069±.002	1.75±0.05	.069±.002
F	5.50±0.05	.217±.002	7.50±0.10	.295±.004	7.50±0.10	.295±.004	7.50±0.10	.295±.004	11.5±0.10	.452±.004
K0	2.80±0.30	.110±.012	2.80±0.30	.110±.012	4.70±0.30	.185±.012	4.70±0.30	.185±.012	4.70±0.30	.185±.012
P	12.00±0.10	.472±.004	12.00±0.10	.472±.004	16.0±0.10	.629±.004	16.0±0.10	.629±.004	16.0±0.10	.629±.004
P0	4.00±0.10	.157±.004	4.00±0.10	.157±.004	4.00±0.10	.157±.004	4.00±0.10	.157±.004	4.00±0.10	.157±.004
P1	2.00±0.05	.079±.002	2.00±0.05	.079±.002	2.00±0.05	.079±.002	2.00±0.05	.079±.002	2.00±0.05	.079±.002
t	0.30±0.05	.012±.002	0.30±0.05	.012±.002	0.30±0.05	.012±.002	0.30±0.05	.012±.002	0.30±0.05	.012±.002
W	12.0±0.30	.472±.012	16.0±0.30	.630±.012	16.0±0.30	.630±.012	16.0±0.30	.630±.012	24.0±0.10	.944±.004
W1	13.5±0.50	.531±.020	17.5±0.50	.689±.020	17.5±0.50	.689±.020	17.5±0.50	.689±.020	17.5±0.50	.689±.020

Notes:

1. There shall be 400 mm of leader minimum which may consist of carrier and cover tape follower.
2. Devices are pockets in accordance with IEC standard IEC286-3 (JIS C 0806) and specifications given above.

Letex Technology Corp.

Photo DMOS Relay Short circuit protection



Features

- SOP package in miniature design
  - 4 pin 4.4×4.30×2.0 [.173×.169×.079]
  - 8 pin 4.4×9.40×2.0 [.173×.370×.079]
- Short circuit protection (Latch type)
- High-speed switching
- Tape & Reel version available

Applications

- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipment
- Industrial control
- Security equipments
- High speed inspection machine

Outline Dimensions

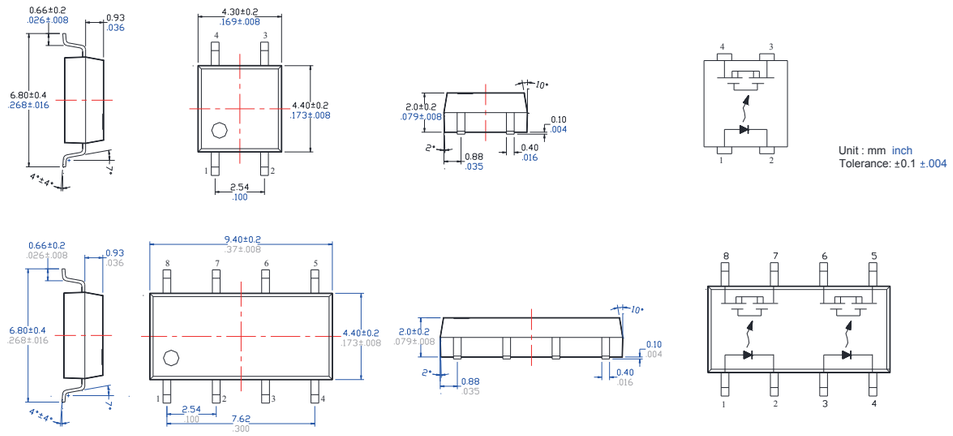


Photo DMOS Relay Specifications

Absolute Maximum Ratings (Ambient Temperature: 25℃)

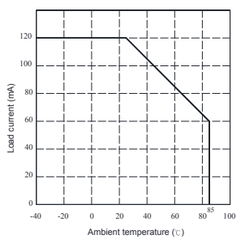
Item		LT211SC LT311SC			Note
		Symbol	Value	Units	
Input	Continuous LED Current	IF	50	mA	
	Peak LED Current	IFP	1000	mA	f =100 Hz , duty = 1%
	LED Reverse Voltage	VR	5	V	
	Input Power Dissipation	PIn	75	mW	
Output	Load Voltage	VL	350	V	(AC peak or DC)
	Load Current	IL	120	mA	
	Peak Load Current	IPeak	0.6	A	100 ms (1 pulse)
	Output Power Dissipation	POut	300	mW	
Total Power Dissipation		PT	350	mW	
I/O Breakdown Voltage		VI/O	1500	Vrms	RH = 60 % , 1 min
Operating Temperature		TOpr	-40 to +85	℃	
Storage Temperature		TStg	-40 to+100	℃	
Pin Soldering Temperature		TSol	260	℃	10 sec max.

Electrical Specifications (Ambient Temperature: 25℃)

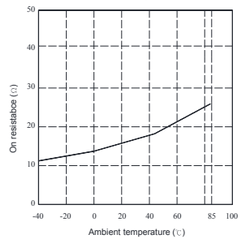
Item		Symbol	MIN.	TYP.	MAX.	Units.	Conditions
Input	LED Forward Voltage	VF		1.2	1.4	V	IF = 10 mA
	Operation LED Current	IF on		0.5	1.0	mA	
	Recovery LED Current	IF off		0.35	0.5	mA	
	Recovery LED Voltage	VF off	0.7			V	
Output	On-Resistance	Ron		17	24	Ω	IF = 5 mA,IL = 100 mA, Time to flow is within 1 sec.
	Off-State Leakage Current	ILeak			1	μA	VL = Rating
	Output Capacitance	COut		41		pF	VL = 0, f = 1 MHz
	Over current protection						
	Cut off current	Ishut	200	280	300	mA	IF = 5 mA, Within 20 ms on time
	Detection time	Tshut		50		μs	IF = 5 mA, VL = 350 VDC short circuit
Transmission	Turn-On Time	TOn		0.23	0.5	ms	IF = 5 mA, IL = 100 mA
	Turn-Off Time	TOff		0.05	0.2	ms	
Coupled	I/O Isolation Resistance	RI/O	10^{10}			Ω	DC 500 V
	I/O Capacitance	CI/O		0.8	1.5	pF	f = 1 MHz

Reference Data

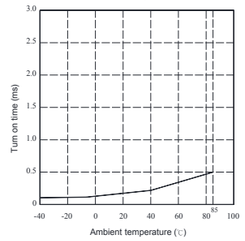
Load current Vs. Ambient temperature



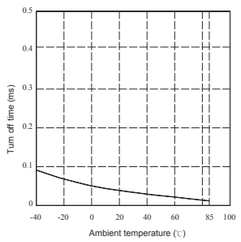
On resistance Vs. Ambient temperature



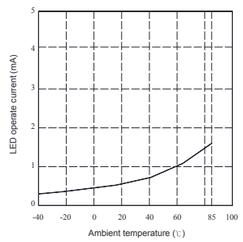
Turn on time Vs. Ambient temperature



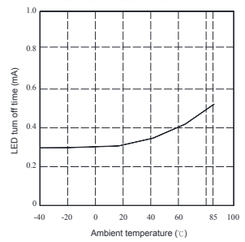
Turn off time Vs. Ambient temperature



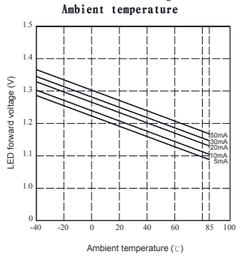
LED operate current Vs. Ambient temperature



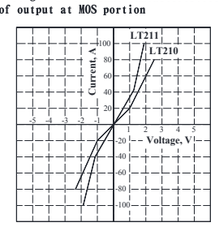
LED turn off current Vs. Ambient temperature



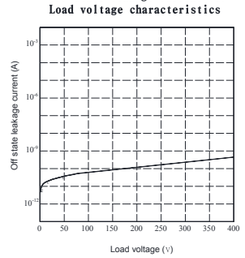
LED forward voltage Vs. Ambient temperature



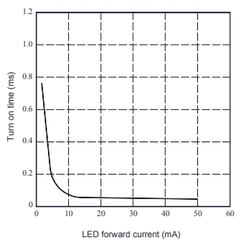
Voltage Vs. currennt characteristics of output at MOS portion



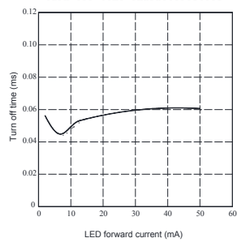
Off state leakage current Vs. Load voltage characteristics



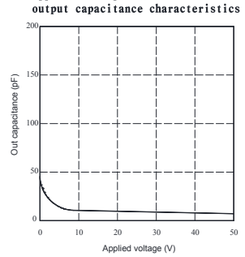
LED foward current Vs. turn on time characteristics



LED foward current Vs. turn off time characteristics



Applied voltage Vs. output capacitance characteristics

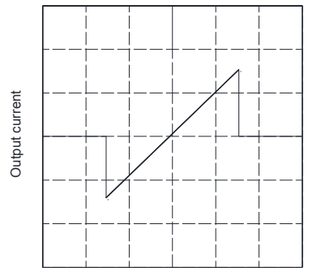


Short-circuit protection function

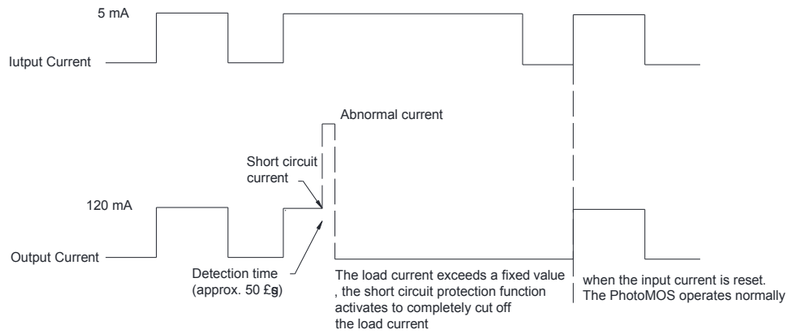
When the load current exceeds a fixed value, the short circuit protection function activates to completely cut off the load current and keep the Photo MOS Relay turned off. In the Photo MOS Relay,The short circuit protection instantaneously (typ. 50 μs) completely cuts of the load current. This function protects any circuits that follow the Photo MOS Relay from excess current and prevents it from becoming damaged. Turn off the input current, and restart, Photo mos relay function to restore. To make the short circuit protectioncomplete, make sure that the input current is at leas t IF = 5 mA.

Output voltage and current characteristics

V-I characteristics of short circuit protection circuit



Action flow chart



RECOMMENDED OPERATING CONDITIONS			
Please following conditions to ensure proper device operation and resetting.			
Item	Symbol	Recommended	Unit
Input LED	IF	5~10	mA

Photovoltaic MOS-FET Driver

Features

- High-speed switching
- 2500Vrms Input/Output isolation
- Tape & Reel version available

Applications

- MOS-FET driver
- Power supply (Vcc) for electronic circuits

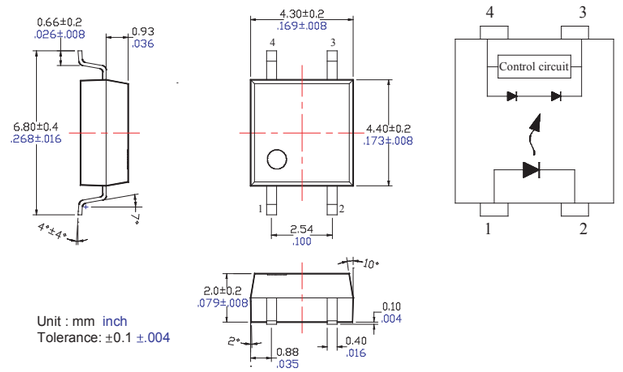
Absolute Maximum Ratings (Ambient Temperature: 25℃)

Item		Symbol	LTP-1G2	LTP-1G3	LTP-1G4	LTP-2G5	Note
Input	Continuous LED Current	IF	50 mA				
	Peak LED Current	IFP	1000 mA				f =100Hz, duty =1%
	LED Reverse Voltage	VR	5 V				
	Input Power Dissipation	PIn	75 mW				
I/O Breakdown Voltage		VI/O	2500 Vrms				RH = 60 % , 1 min
Operating Temperature		Topr	-40℃ to+85℃				
Storage Temperature		Tstg	-40℃ to+100℃				

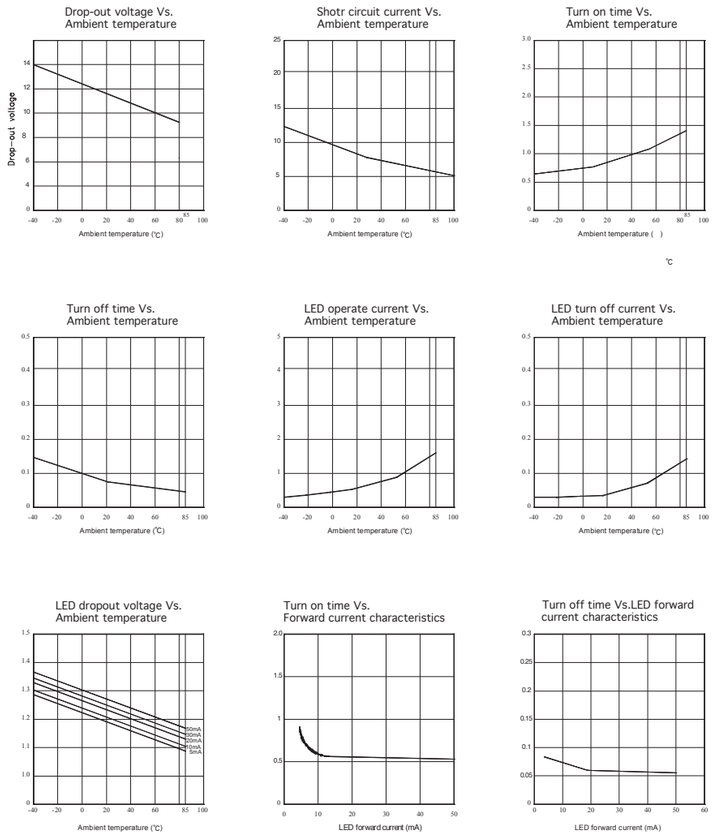
Electrical Specifications (Ambient Temperature: 25℃)

Item		Symbol		LTP-1G2	LTP-1G3	LTP-1G4	LTP-2G5	Conditions
Input	LED Forward Voltage	VF	TYP.	1.2 V				IF = 10 mA
			MAX.	1.4 V				
	Operation LED Current	IF on	TYP.	0.5 mA				VOC = 5 V
			MAX.	3.0 mA				
	Recovery LED Current	IF off	TYP.	0.35 mA	0.35 mA	0.35 mA	0.35 mA	VOC =1 V
			MAX.	0.5 mA	0.5 mA	0.5 mA	0.5 mA	
Output	Drop-out Voltage	VCC	MIN.	6 V	10 V	5 V	10 V	I F= 10 mA
			TYP.	8 V	12 V	8.3 V	16 V	
	Short Circuit Current	ISC	MIN.	3 uA	1 uA	5 uA	3 uA	IF = 10 mA
			TYP.	8 uA	8 uA	14 uA	8 uA	
Transmission	Turn-On Time	Ton	TYP.	0.23 ms	0.23 ms	0.8 ms	0.28 ms	IF = 10 mA CL = 1000 pF
	Turn-Off Time	Toff	TYP.	0.03 ms	0.03 ms	0.1 ms	0.05 ms	
Coupled	I/O Isolation Resistance	RI/O	MIN.	10^9 Ω				DC 500 V
	I/O Capacitance	CI/O	TYP.	0.8 pF				f = 1 MHz
			MAX.	1.5 pF				

Outline Dimensions



Reference Data



Letex Technology Corp.

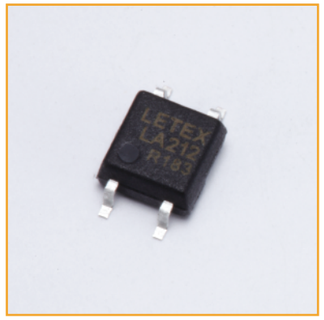
Photocoupler
光耦合器

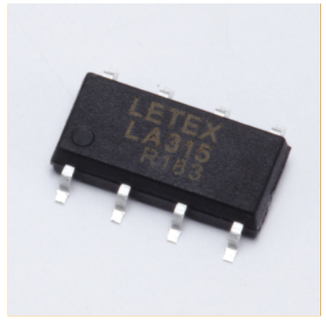
Features

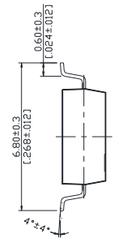
- SOP package in miniature design
  - 4 pin 4.4×4.30×2.0 [.173×.169×.079]
  - 8 pin 4.4×9.40×2.0 [.173×.370×.079]
- 2500Vrms Input/Output isolation
- High speed response
- No feedback phenomenon, input signal transmission by one-way, Output signal doesn't affect the input signal.
- Current transfer ratio
  {CTR: Min. 80% at IF=5mA, Vce=5V}
- Directly interfaces to TTL.
- UL Approved No. E222222

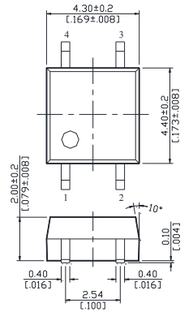
Applications

- Telecommunications (PC, Electronic notepad)
- Measuring and Testing equipments
- Industrial controls
- Security equipment
- High speed inspection machines
- Copiers, automatic vending machines
- Telephone sets

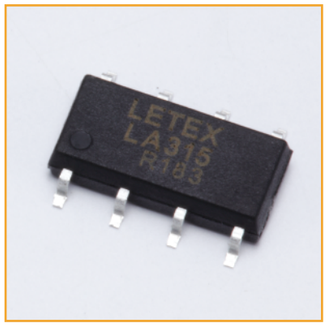


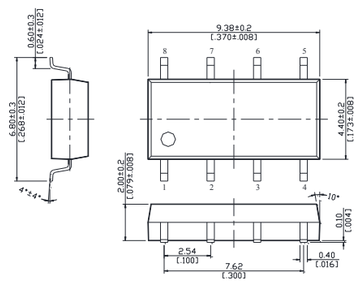




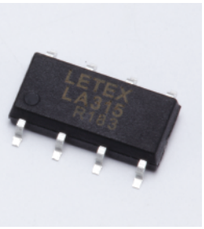


P/No.		Electronic and Optical Characterisitics(Ta=25℃)									Input	Viso (Vrms)	Package
		VF [V]	IR [μA]	BVceo [V]	Iceo [nA]	CTR [%]	V[sat] [V]	Riso [Ω]	Tr [μs]	Tf [μs]			
		IF=20mA	VR=5V	Ic=0.5mA	Vce=20V	IF=5mA Vce=5V	IF=20mA IC=1mA	DC500V	Vce=2V IC=2mA RL=100Ω				
Phototransistor Coupler													
LA211	Min			80		50		10^9			DC	2500	
	Typ	1.2											
	Max	1.4	10		100	300/600	0.4		3				
LA212	Min			80		50		10^9			AC		
	Typ												
	Max	1.4			100	300/600	0.3		3				
LA213	Min			35		600					DC	2500	
	Typ	1.2											
	Max	1.4	10		100	7000	1	10^9	300				
LA214	Min			35		600					AC		
	Typ	1.2											
	Max	1.4			100	7000	1	10^9	300				
LA215	Min			300		600					DC		
	Typ	1.2											
	Max	1.4	10		100	9000	0.3	10^9	300				



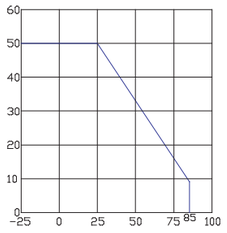


P/No.		Electronic and Optical Characterisitics(Ta=25℃)											Package
		VF [V]	IR [μA]	BVceo [V]	Iceo [nA]	CTR [%]	V[sat] [V]	Riso [Ω]	Tr [μs]	Tf [μs]	Input	Viso (Vrms)	
		IF=20mA	VR=5V	Ic=0.5mA	Vce=20V	IF=5mA Vce=5V	IF=20mA IC=1mA	DC500V	Vce=2V IC=2mA RL=100Ω				
Phototransistor Coupler													
LA311	Min			80		50		10^9			DC	2500	
	Typ	1.2											
	Max	1.4	10		100	300/600	0.4		3	3			
LA312	Min			80		50		10^9			AC		
	Typ												
	Max	1.4			100	300/600	0.3		3	3			
LA313	Min			35		600					DC	2500	
	Typ	1.2											
	Max	1.4	10		100	7000	1	10^9	300	250			
LA314	Min			35		600					AC		
	Typ	1.2											
	Max	1.4			100	7000	1	10^9	300	250			
LA315	Min			300		600					DC		
	Typ	1.2											
	Max	1.4			100	9000	0.3	10^9	300	100			

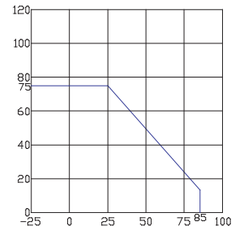


Reference Data

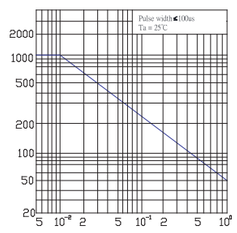
Forward Current vs. Ambient Temperature



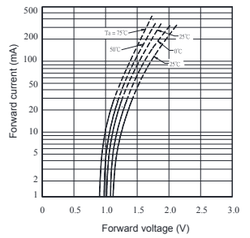
Collector Power Dissipation vs. Ambient Temperature



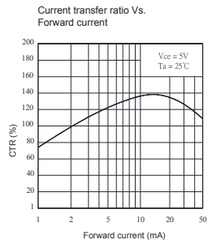
Peak Forward Current vs. Duty Ratio



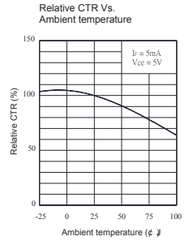
Forward current Vs. Forward woltage



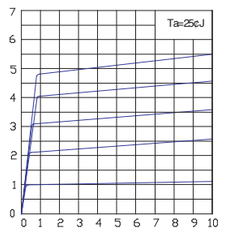
Current transfer ratio Vs. Forward current



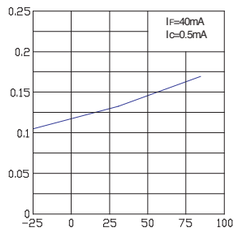
Relative CTR Vs. Ambient temperature



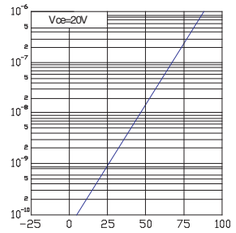
Collector Current vs. Collector-Emitter Voltage



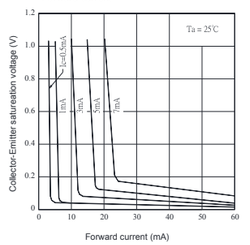
Collector-Emitter Saturation Voltage vs. Ambient Temperature



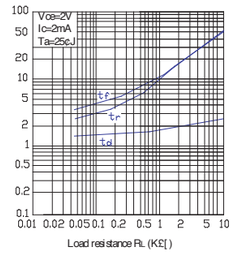
Collector Dark Current vs. Ambient Temperature



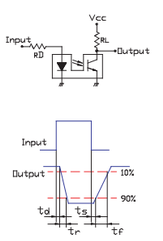
Collector-Emitter Saturation voltage Vs. Forward current



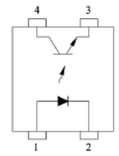
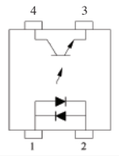
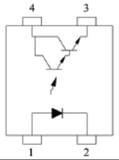
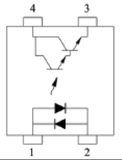
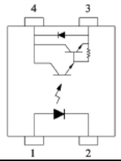
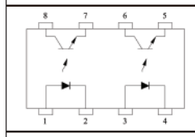
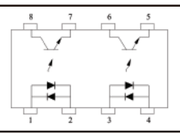
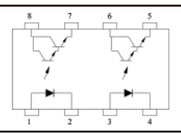
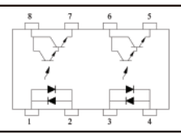
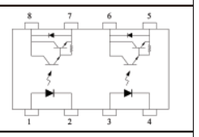
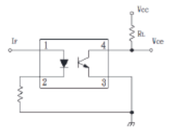
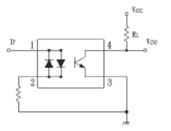
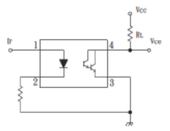
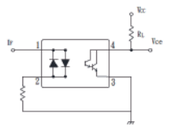
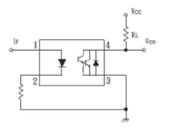
Response Time vs. Load Resistance



Test Circuit for Response Time

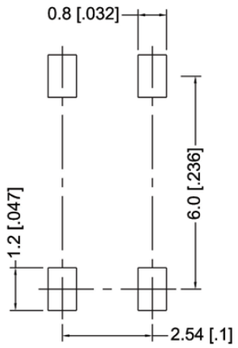


Schematic

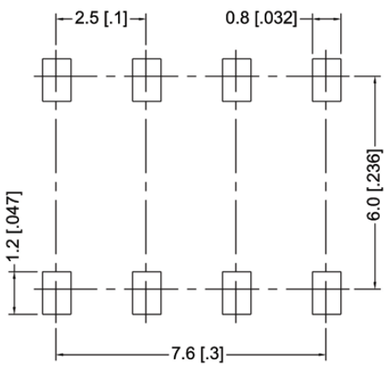
LA211	LA212	LA213	LA214	LA215
				
LA311	**LA312**	**LA313**	**LA314**	**LA315**
				
Wiring diagram				
				

Recommended Mounting Pad Layout Sizes

(SOP 4 PIN)
(Top view)

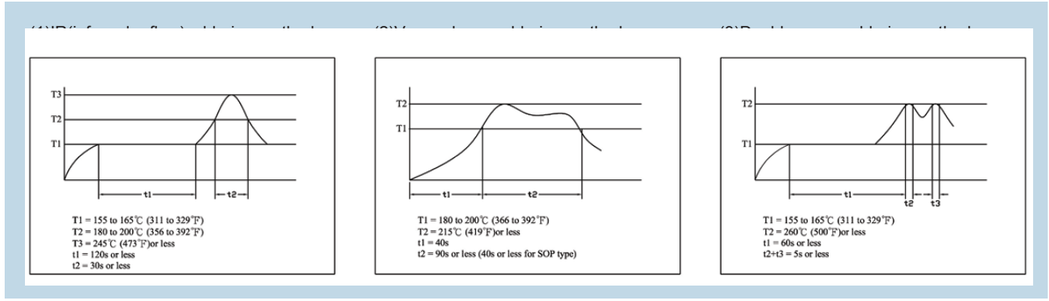


(SOP 8 PIN)
(Top view)



Unit: mm [INCH]
Tolerance: ±0.1[.004]

Soldering

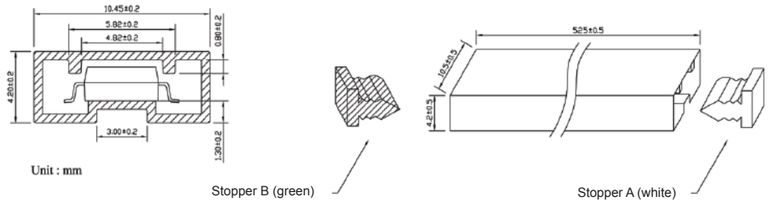


Notes:

1. When soldering PC board terminals, keep soldering time to within 10 s at 260℃ (500°F)
2. When soldering surface-mount terminals, the following conditions are recommended.
3. Soldering iron method
   Tip temperature:280 to 300℃(536 to 572°F)
   Wattage:30 to 60 W
   Soldering time:within 5 s

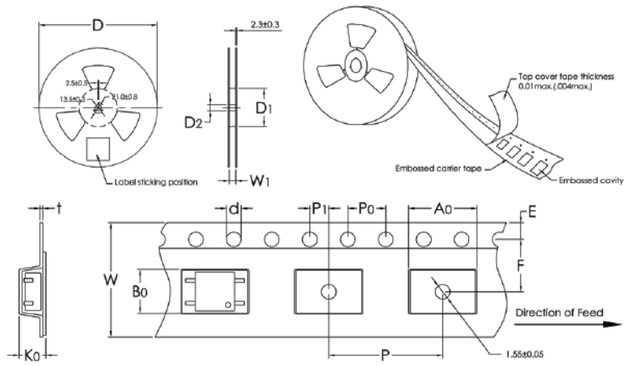
Taping Specifications for Surface Mount Devices

Tube Pin 1 is on the stopper B (green) side



Package Type	Quantity
SOP 4 pin	100 pcs
SOP 8 pin	50 pcs

Tube and Reel



Product	SOP-4pin		SOP-8pin	
Packaging	2000pcs / Reel		1000pcs / Reel	
Symbol	mm	INCH	mm	INCH
Tape Size	12.0	.472	16.0	.630
A0	7.20±0.10	.283±.004	7.20±0.10	.283±.004
B0	4.80±0.10	.189±.004	9.80±0.10	.386±.004
d	1.55±0.05	.061±.002	1.55±0.05	.061±.002
D	330.0±2.0	13.0±.079	330.0±2.0	13.0±.079
D1	99.5±1.0	3.92±.039	99.5±1.0	3.92±.039
D2	13.5±0.30	.531±.012	13.5±0.30	.531±.012
E	1.75±0.05	.069±.002	1.75±0.05	.069±.002
F	5.50±0.05	.217±.002	7.50±0.10	.295±.004
K0	2.80±0.30	.110±.012	2.80±0.30	.110±.012
P	12.00±0.10	.472±.004	12.00±0.10	.472±.004
P0	4.00±0.10	.157±.004	4.00±0.10	.157±.004
P1	2.00±0.05	.079±.002	2.00±0.05	.079±.002
t	0.30±0.05	.012±.002	0.30±0.05	.012±.002
W	12.0±0.30	.472±.012	16.0±0.30	.630±.012
W1	13.5±0.50	.531±.020	17.5±0.50	.689±.020

Notes:

1. There shall be 400 mm of leader minimum which may consist of carrier and cover tape follower.
2. Devices are pockets in accordance with IEC standard IEC286-3 (JIS C 0806) and specifications given above.

Photointerrupter
光遮斷器

P/No.	Electronic and Optical Characteristics (ta=25℃)								Fig. No.	PIC
	VF	IR	Bvceo	Iceo	Ic(on)	V(sat)	Tr	Tf		
	IF=10mA	VR=5V		Vce=20V IF=0V	IF=20mA Vce=5V	IF=20mA IC=1mA	Vce=2V, Ic=2mA RL=100			
	V (Max.)	μA (Max.)		nA (Max.)	mA (Min.)	V (Max.)	μs (Typ.)			
LBT-121	1.4V	10	30V	100	0.5mA	0.4	5	5	Fig. 1	
LBT-123	1.6V	10	30V	100	0.1mA	0.4	20	20	Fig. 2	
LBT-124	1.6V	10	30V	100	0.2mA	0.4	5	5	Fig. 3	
LBT-127HLD	1.5V	10	30V	100	0.2mA	0.4	15	15	Fig. 4	
LBT-130-1	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 5	
LBT-130-2	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 6	
LBT-131	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 7	
LBT-133	1.3V	10	30V	100	0.5mA	0.4	30	25	Fig. 8	
LBT-134	1.3V	10	30V	100	0.5mA	0.4	30	25	Fig. 9	
LBT-135	1.4V	10	30V	100	0.5mA	0.4	30	25	Fig. 10	
LBT-136	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 11	

P/No.	Electronic and Optical Characteristics (ta=25℃)								Fig. No.	PIC
	VF	IR	Bvceo	Iceo	Ic(on)	V(sat)	Tr	Tf		
	IF=10mA	VR=5V		Vce=20V IF=0V	IF=20mA Vce=5V	IF=20mA IC=1mA	Vce=2V, Ic=2mA RL=100			
	V (Max.)	μA (Max.)		nA (Max.)	mA (Min.)	V (Max.)	μs (Typ.)			
LBT-137	1.4V	10	30V	100	0.5mA	0.4	5	5	Fig. 12	
LBT-138	1.5V	10	30V	100	1.0mA	0.4	20	20	Fig. 13	
LBT-140	1.6V	10	30V	100	0.2mA	0.4	10	10	Fig. 14	
LBT-141	1.6V	10	30V	100	0.2mA	0.4	10	10	Fig. 15	
LBT-142	1.7V	10	30V	100	1.25mA	0.4	30	30	Fig. 16	
LBT-143	1.4V	10	30V	100	0.5mA	0.4	10	15	Fig. 17	
LBT-213S	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 18	
LBT-204P	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 20	
LBT-201A	1.3V	10	30V	100	0.5mA	0.4			Fig. 21	
LBT-136W	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 22	
LBT-133W	1.4V	10	30V	100	0.5mA	0.4	10	10	Fig. 23	

Fig. 1

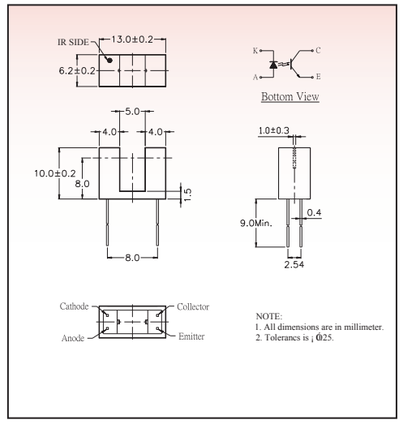


Fig. 2

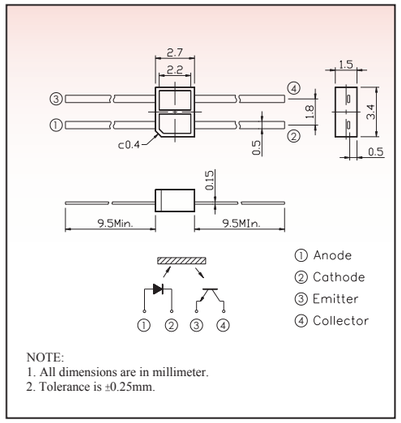


Fig. 3

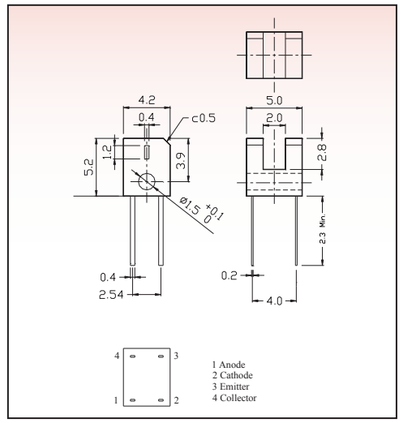


Fig. 4

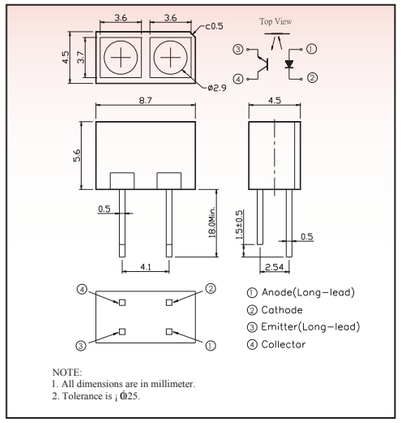


Fig. 5

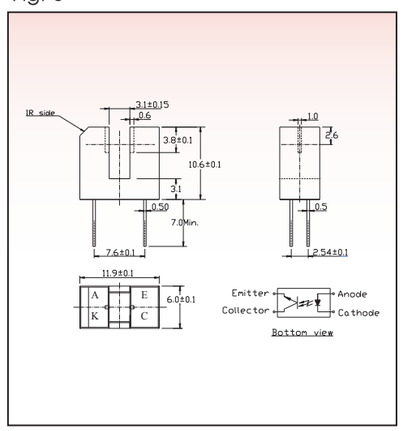
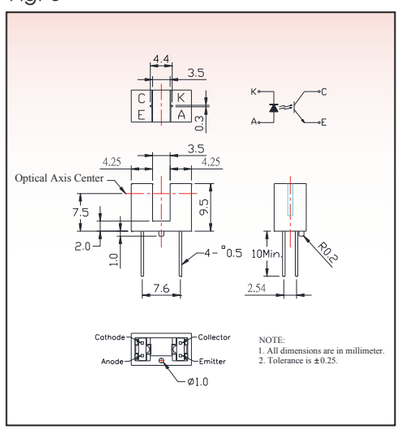


Fig. 6



Notes: 1. All dimensions are in millimeter. 2. Tolerance is ±0.25

Fig. 7

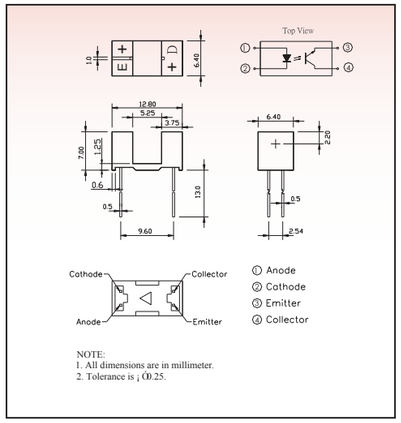


Fig. 8

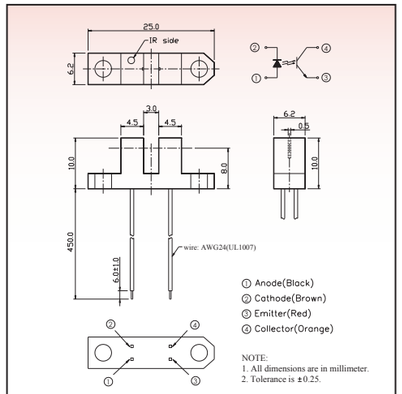


Fig. 9

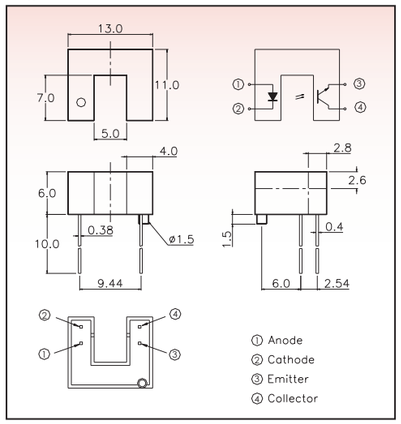


Fig. 10

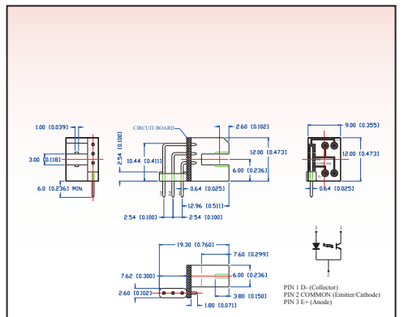


Fig. 11

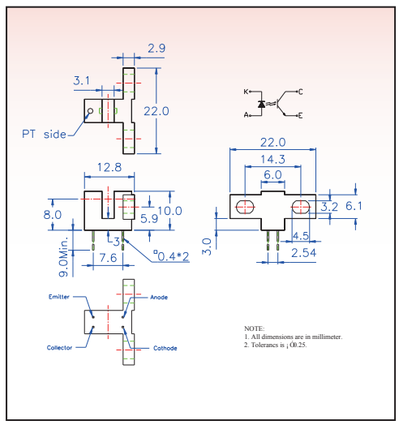


Fig. 12

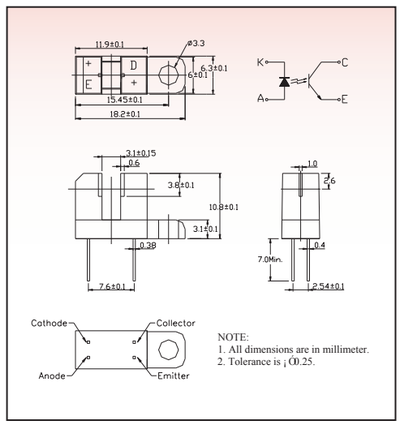


Fig. 13

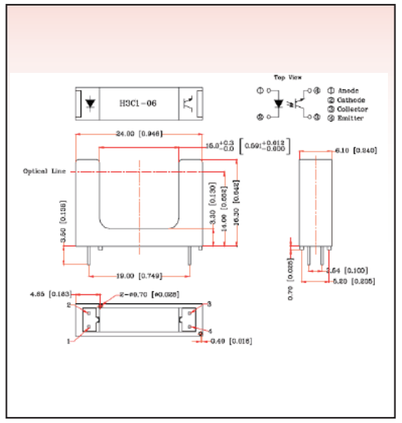


Fig. 14

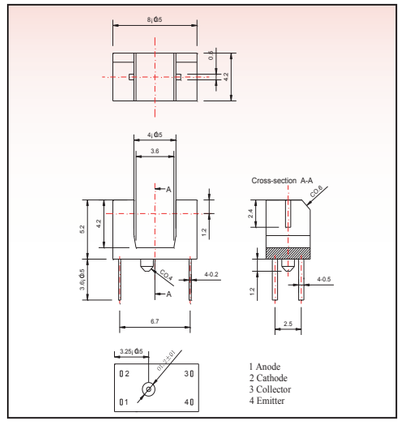


Fig. 15

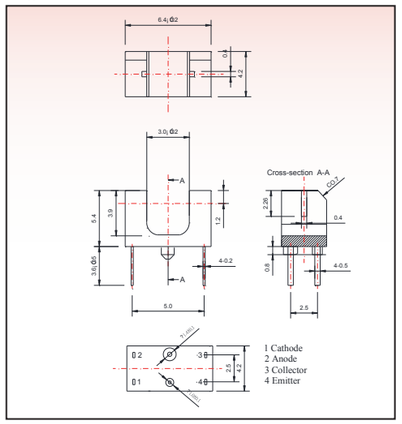


Fig. 16

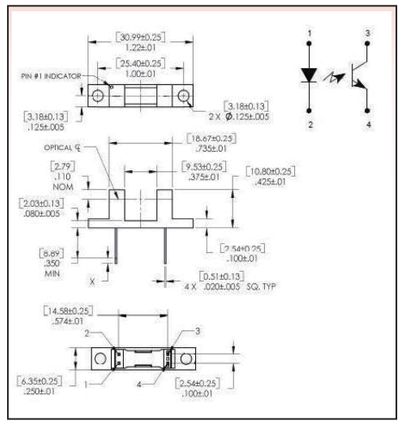


Fig. 17

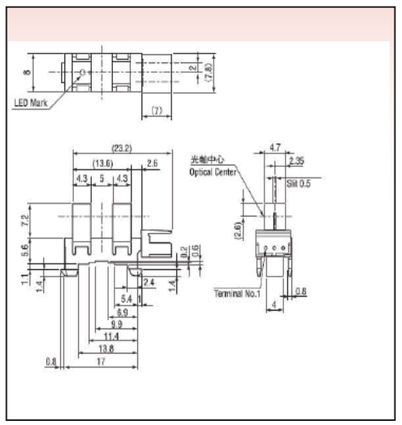


Fig. 18

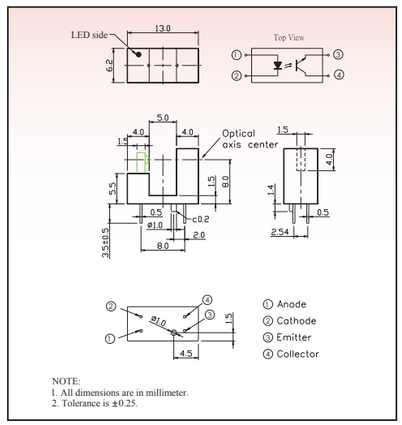
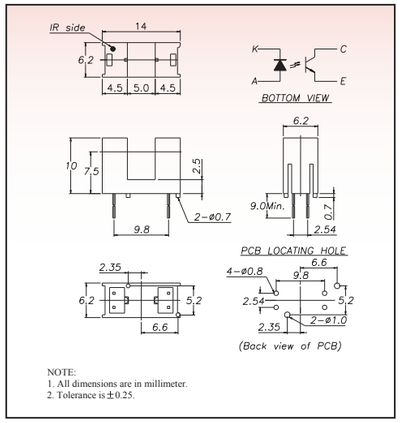


Fig. 19



NOTE:
1. All dimensions are in millimeter.
2. Tolerance is ±0.25.

Fig. 20

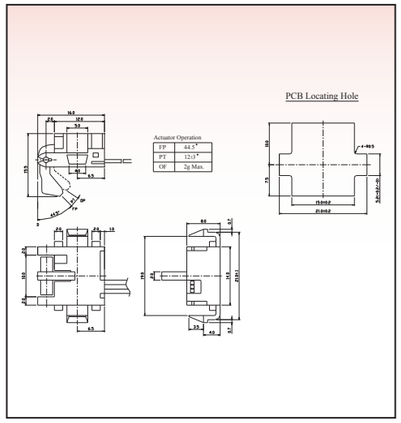
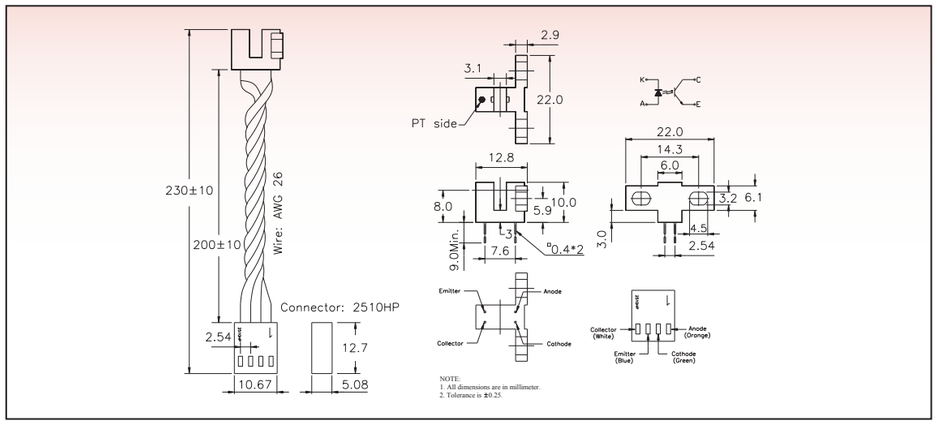
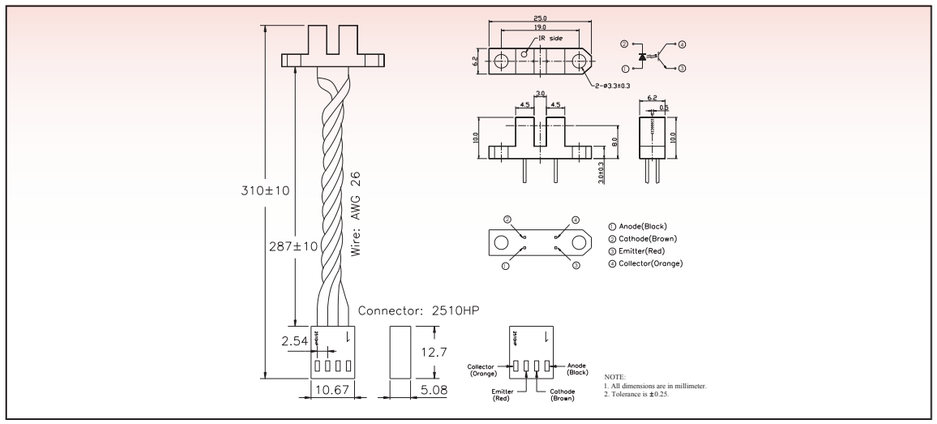


Fig. 21



NOTE:
1. All dimensions are in millimeter.
2. Tolerance is ±0.25.

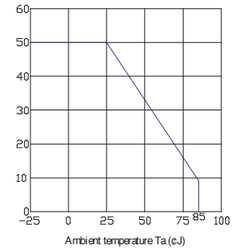
Fig. 22



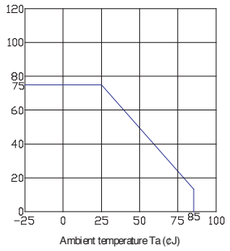
NOTE:
1. All dimensions are in millimeter.
2. Tolerance is ±0.25.

Reference Data

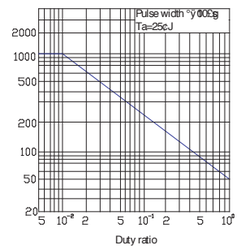
Forward Current vs. Ambient Temperature



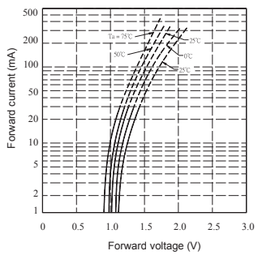
Collector Power Dissipation vs. Ambient Temperature



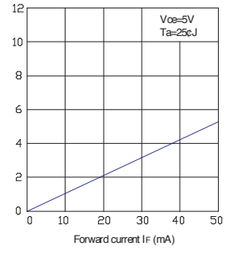
Peak Forward Current vs. Duty Ratio



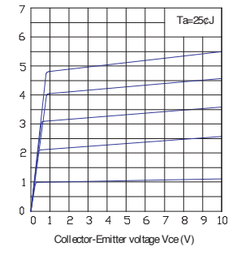
Forward current Vs. Forward voltage



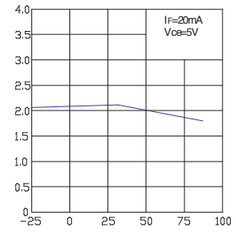
Collector Current vs. Forward Current



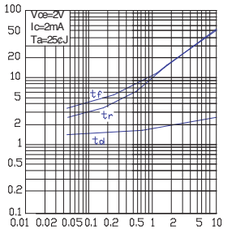
Collector Current vs. Collector-Emitter Voltage



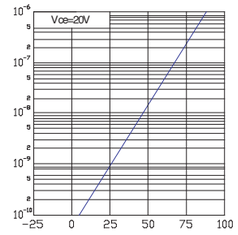
Collector Current vs. Ambient Temperature



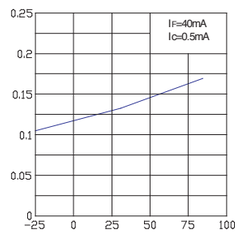
Response Time vs. Load Resistance



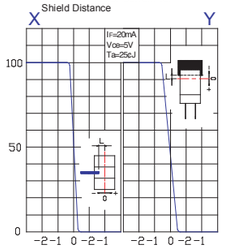
Collector Dark Current vs. Ambient Temperature



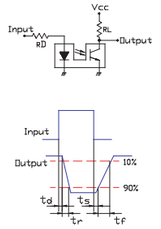
Collector-Emitter Saturation Voltage vs. Ambient Temperature



Relative Collector Current vs. Shield Distance



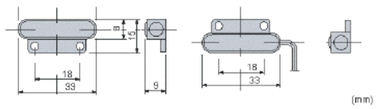
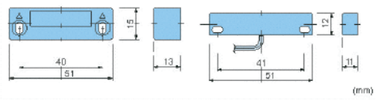
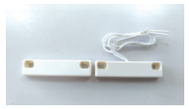
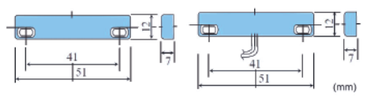
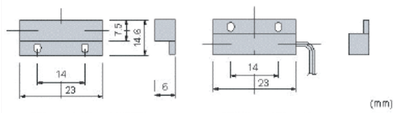
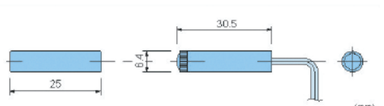
Test Circuit for Response Time

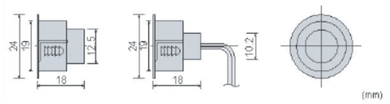
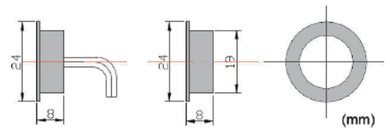
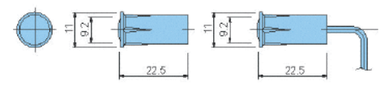
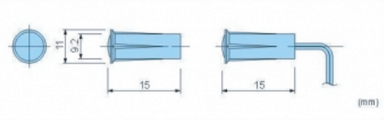
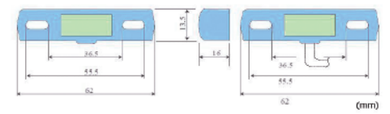
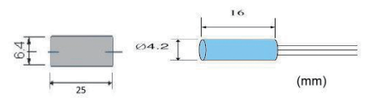
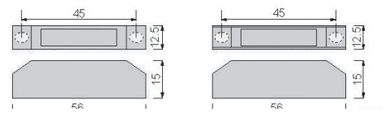


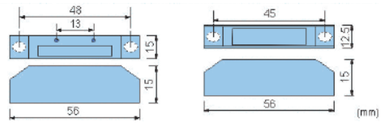
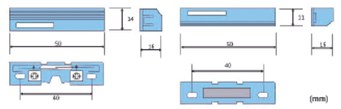
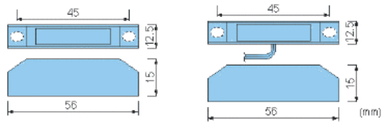
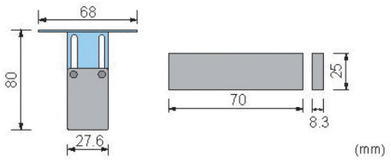
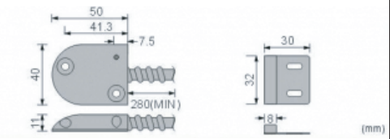
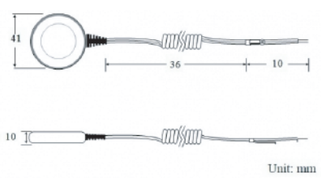
Magnetic Contact

磁簧開關

Product Description Table

MODEL	DIMENSION	NOTE
LC-12 		■ 小型，完全防水設計。 ■ 螺絲孔側可折斷使用。 ■ 可供應(C.L)，(O.L)及SPDT三種接點型式產品。 ■ 磁引距離20mm以上(C.L產品) ， 15mm以上 (O.L及SPDT產品) ， LCL-12A磁引距離35mm以上。
LC-13 		■ 磁引距離30mm以上。 ■ 可供應(C.L)及(O.L)兩種接點型式產品。
LC-14 		■ 薄型化設計。 ■ 磁引距離20mm以上。 ■ 可供應(C.L)及(O.L)兩種接點型式產品。
LC-15 		■ 超小型設計。 ■ 可供應(C.L)及(O.L)兩種接點型式產品。 ■ 磁引距離LC-15A: 15mm以上，LC-15B: 15mm以上。 ■ LC-15C: 13mm以上。 ■ LCL-15A磁引距離22m 以上。
LC-22 		■ 壓入隱藏安裝。 ■ 壓入口徑1/4"。 ■ 開關與磁石可分開供應。

MODEL	DIMENSION	NOTE
LC-25 		■ LC-23之短形化品種，全長僅20mm。 ■ 磁引距離（在非鐵質門上）。 LC-25A: 20 mm以上， LC-25B:15 mm以上， LCL-25A: 30 mm以上。
LC-28 		■ LC-25之薄形化產品，全長僅8mm。 ■ 磁引距離（在非鐵質門上）。 LC-28A:20 mm以上
LC-31 		■ 壓入隱藏安裝，口徑3/8"。 ■ 非鐵質門窗適用。 ■ 磁引距離 LC-31A:15mm以上，LC-31B:13mm以上， LC-31C:13mm以上，LCL-31A:20 mm以上。
LCS-411 		■ LC-31之短形化品種，全長僅15mm。 ■ 磁引距離 LCS-411A:13 mm以上， LCSL-411A:18mm以上。 ■ 突波保護
LC-44 		■ 完全防水設計。 ■ 適用於保全系統 ■ 磁引距離25mm以上。
LC-61 		■ 壓入隱藏安裝，直徑4.2φ。 ■ 非鐵質門窗適用。 ■ 磁引距離 LC-61A:15mm以上
LC-66 		■ 完全防水設計。 ■ 可自行搭配線材規格和長度。 ■ 磁引距離25mm以上。

MODEL	DIMENSION	NOTE
LC-69 		■ 可自行搭配線材規格和長度。 ■ 磁引距離25mm以上。
LC-73 		■ LC-11之取代產品，定位孔距相同。 ■ 磁引距離25mm。 ■ 可供應(C.L)及(O.L)兩種接點型式產品。
LC-77 		■ 完全防水設計。 ■ 磁引距離25mm以上。
LC-101 		■用於車庫門、鐵捲門，門頂安裝。 ■新設計的安裝支架，便於安裝。 ■磁引距離高達80mm。
LCD-707 		■ 小型化地面型捲門感知器。 ■ 縱向磁路設計, 鐵質捲門之鐵板是磁石的〝增磁板〞而不是〝吸磁板〞。 ■ 有LED作監視接點動作狀態。
LC-SS-22AG 玻□震動感知器 		■ 超低常態內阻抗2.2Ω。 ■ 內建震壓過大保護線路。 ■ 發報信號時間適當穩定0.5~2秒。

MEMO

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