

Description

Fast Delivery Time

Pxxx0LA,PXXX0LB Series SIDACtor Protection Thyristor protect telecommunications equipment such as ADSL Modems,Router, , Telephone, CCTV Camera,Digital Video Record,Video Capture Card,Twisted-pair video transmitter,CATV Splitter.....Etc.

Pxxx0LA,PXXX0LB Series SIDACtor Protection Thyristor are used to enable equipment to meet various regulatory requirements including GR 1089, ITU K.20/21,IEC 61000-4-5, YD/T 1082,YD/T 993,YD/T 950,TIA-968-A ,TIA-968-B



Features

Compared to surge suppression using other technologies, Pxxx0LA,PXXX0LB Series devices offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt). Pxxx0LA,PXXX0LB Series devices:

- 100% Lead-Free(RoHs Compliant)
- Cannot be damaged by voltage
- Eliminate hysteresis and heat dissipation typically found with clamping devices
- Eliminate voltage overshoot caused by fast-rising transients
- Are non-degenerative
- Have low capacitance, making them ideal for high-speed transmission equipment

Electrical Characteristics

Parameter	Definition
V_{DRM}	Peak Off-state Voltage — maximum voltage that can be applied while maintaining off state
V_S	Switching Voltage — maximum voltage prior to switching to on state
I_H	Holding Current — minimum current required to maintain on state
I_S	Switching Current — maximum current required to switch to on state
I_T	On-state Current — maximum rated continuous on-state current
V_T	On-state Voltage — maximum voltage measured at rated on-state current
Capacitance	Off-state Capacitance — typical capacitance measured in off state
I_{DRM}	Leakage Current — maximum peak off-state current measured at V_{DRM}
I_{PP}	Peak Pulse Current — maximum rated peak impulse current
I_{TSM}	Peak One-cycle Surge Current — maximum rated one-cycle AC current
di/dt	Rate of Rise of Current — maximum rated value of the acceptable rate of rise in current over time

Electrical Characteristics



Part Number	Marking	V_{DRM} @ $I_{DRM}=5\ \mu\text{A}$	V_s @ $100\text{V}/\mu\text{s}$	I_H	I_s	I_T	V_T @ $I_T=2.2\text{Amps}$	Capacitance @ $1\text{MHz}, 2\text{V bias}$
		V_{min}	V_{max}	mA_{min}	mA_{max}	A_{max}	V_{max}	pF
P0080LA	P008LA	6	25	50	800	2.2	4	45
P0300LA	P03LA	25	40	50	800	2.2	4	45
P0640LA	P06LA	58	77	150	800	2.2	4	35
P0720LA	P07LA	65	88	150	800	2.2	4	50
P0900LA	P09LA	75	98	150	800	2.2	4	40
P1100LA	P11LA	90	130	150	800	2.2	4	35
P1300LA	P13LA	120	160	150	800	2.2	4	35
P1500LA	P15LA	140	180	150	800	2.2	4	40
P1800LA	P18LA	170	220	150	800	2.2	4	40
P2300LA	P23LA	190	260	150	800	2.2	4	45
P2600LA	P26LA	220	300	150	800	2.2	4	35
P3100LA	P31LA	275	350	150	800	2.2	4	35
P3500LA	P35LA	320	400	150	800	2.2	4	30
P0080LB	P008LB	6	25	50	800	2.2	4	60
P0300LB	P03LB	25	40	50	800	2.2	4	65
P0640LB	P06LB	58	77	150	800	2.2	4	45
P0720LB	P07LB	65	88	150	800	2.2	4	45
P0900LB	P09LB	75	98	150	800	2.2	4	40
P1100LB	P11LB	90	130	150	800	2.2	4	40
P1300LB	P13LB	120	160	150	800	2.2	4	40
P1500LB	P15LB	140	180	150	800	2.2	4	35
P1800LB	P18LB	170	220	150	800	2.2	4	65

Electrical Characteristics

continued



Part Number	Marking	V_{DRM} @ $I_{DRM}=5 \mu A$	V_s @ $100V/\mu s$	I_H	I_s	I_T	V_T @ $I_T=2.2Amps$	Capacitance @ $1MHz, 2V$ bias
		V_{min}	V_{max}	mA_{min}	mA_{max}	A_{max}	V_{max}	pF
P2300LB	P23LB	190	260	150	800	2.2	4	50
P2600LB	P26LB	220	300	150	800	2.2	4	45
P3100LB	P31LB	275	350	150	800	2.2	4	45
P3500LB	P35LB	320	400	150	800	2.2	4	40

Notes:

-All measurements are made at an ambient temperature of 25°C .Ipp applies to -40°C through +85°C temperature range .

-Off-state capacitance(Co) is typical value.


*For surge ratings,see next page.

Surge Ratings

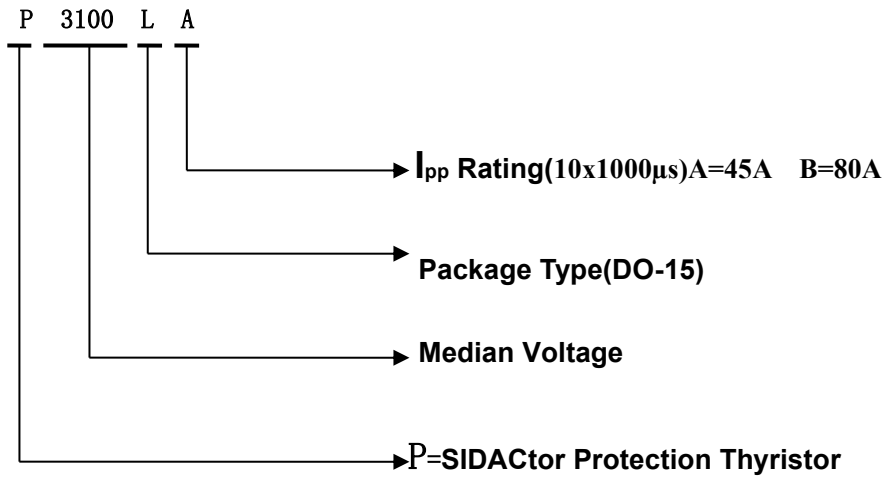


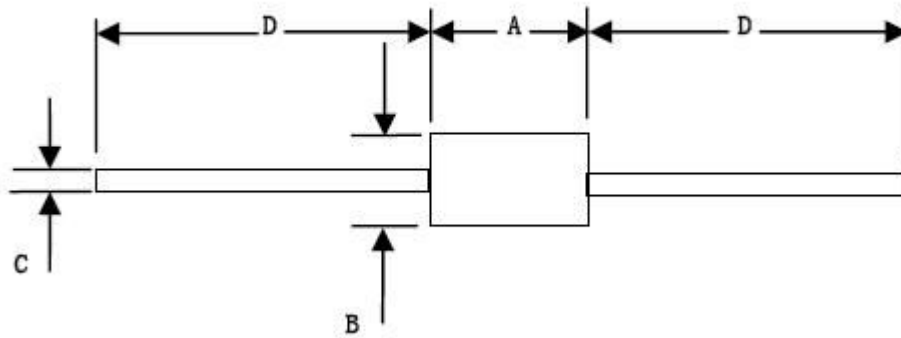
Series	I_{pp} 2x10 μ s	I_{pp} 8x20 μ s	I_{pp} 10x160 μ s	I_{pp} 10x560 μ s	I_{pp} 10x1000 μ s	I_{pp} 5x320 μ s	I_{pp} 5x310 μ s	I_{pp} 10x360 μ s	I_{TSM} 50/60Hz	di/dt
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps/ μ s
A	150	150	90	50	45	75	75	75	20	500
B	250	250	150	100	80	100	100	125	25	500

Thermal Considerations

Package	DO-15	Symbol	Parameter	Value	Unit
		T_J	Operating Junction Temperature Range	-40 to +150	$^{\circ}C$
		T_S	Storage Temperature Range	-65 to +150	$^{\circ}C$
		$R_{\theta JA}$	Junction to Ambient on printed circuit	90	$^{\circ}C/W$

Description of Part Number





Dimension	Inches		Millimeters		Note
	Min	Max	Min	Max	
A	0.230	0.300	5.80	7.60	
B	0.104	0.140	2.60	3.60	Φ
C	0.026	0.034	0.70	0.90	Φ
D	1.000		25.4		

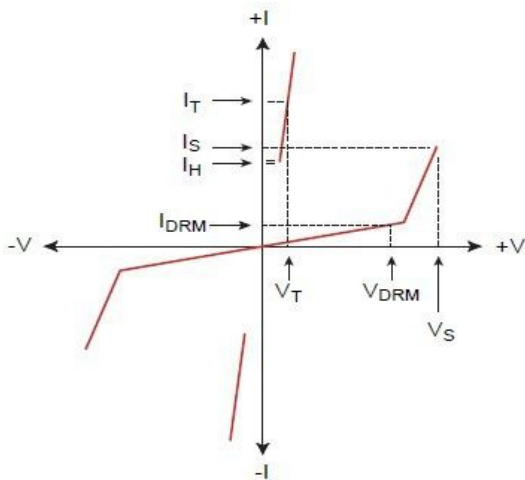
Packing Options



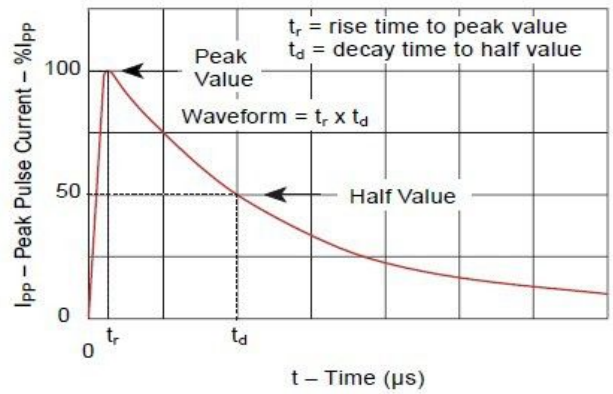
Package Type	Description	Packing Quantity	Industry Standard
LA, LB	DO-15 Tape and Reel Pack	4000 PCS	N/A

Characteristics Curve

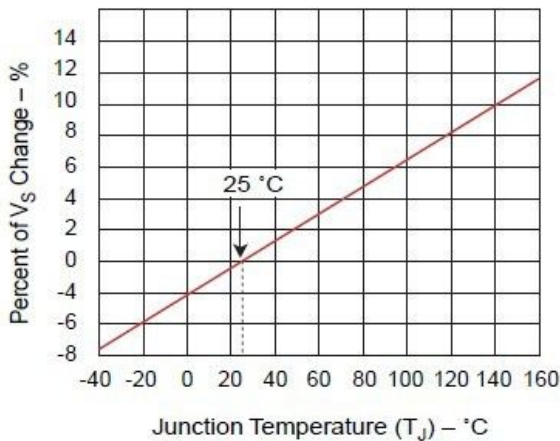
V-I Characteristics



Tr x Td Pulse Waveform



Normalized Vs Change Versus Junction Temperature



Normalized DC Holding Current Versus Case Temperature

