

Description

Fast Delivery Time

P3100LA 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.

P3100LA 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, P3100LA devices offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt). P3100LA 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} @ $I_{DRM}=5 \mu A$	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
P3100LA	P31LA	275	350	150	800	2.2	4	35

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.

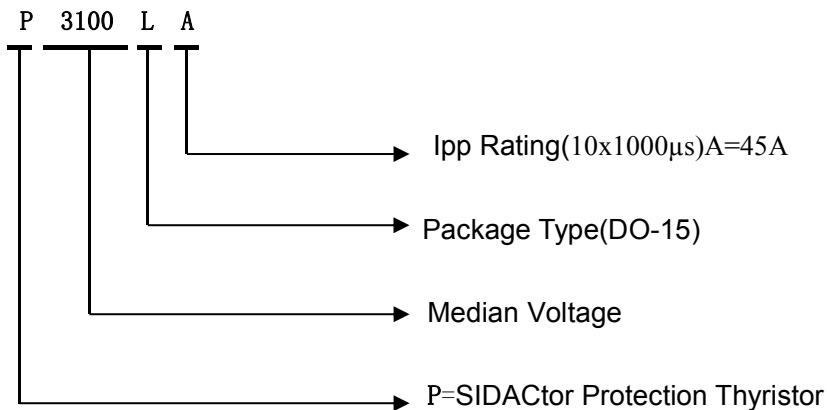
Surge Ratings

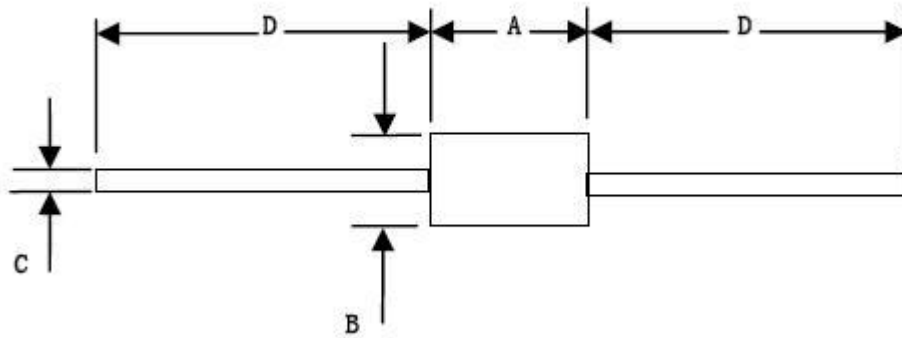
Series	I_{pp} 2x10 μs	I_{pp} 8x20 μs	I_{pp} 10x160 μs	I_{pp} 10x560 μs	I_{pp} 10x1000 μs	I_{pp} 5x320 μs	I_{pp} 5x310 μs	I_{pp} 10x360 μs	I_{TSM} 50/60Hz	di/dt
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps/ μs
A	150	150	90	50	45	75	75	75	20	500

Thermal Considerations

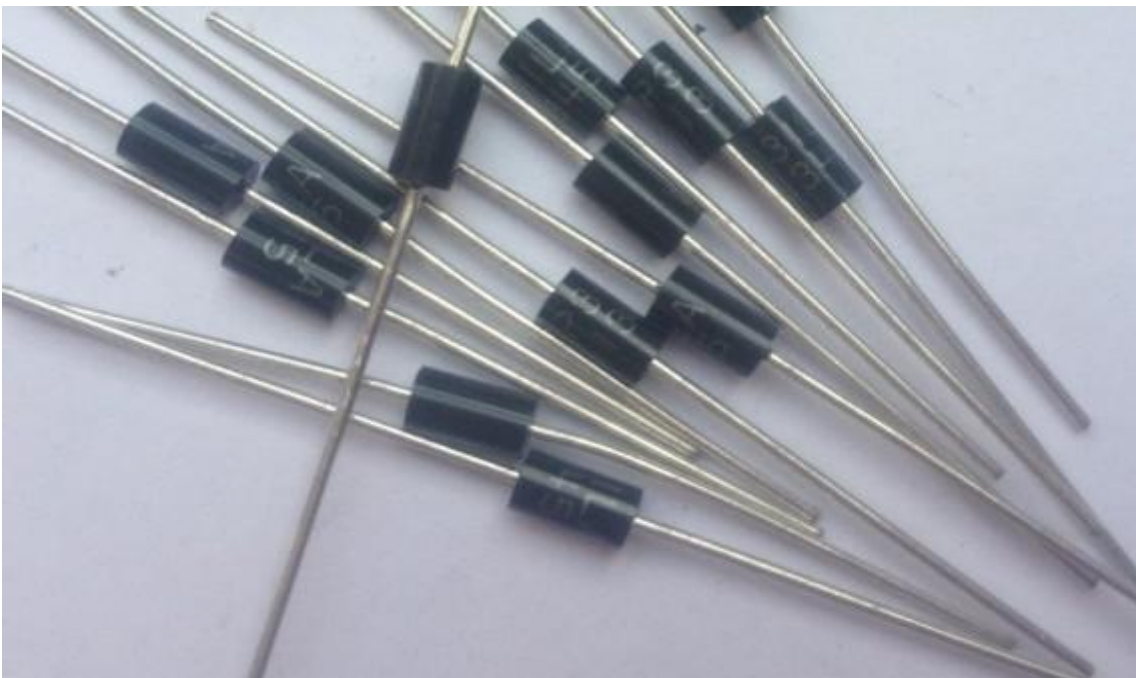
Package	DO-15	Symbol	Parameter	Value	Unit
		T_J	Operating Junction Temperature Range	-40 to +150	°C
		T_s	Storage Temperature Range	-65 to +150	°C
		$R_{\theta JA}$	Junction to Ambient on printed circuit	90	°C /W

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		



P3100LA (Fast Delivery Time)

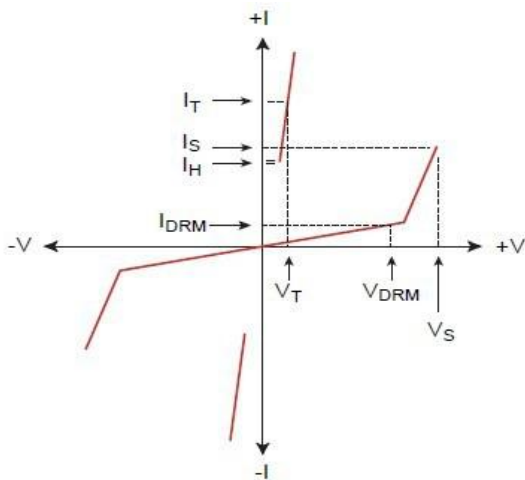
Packing Options



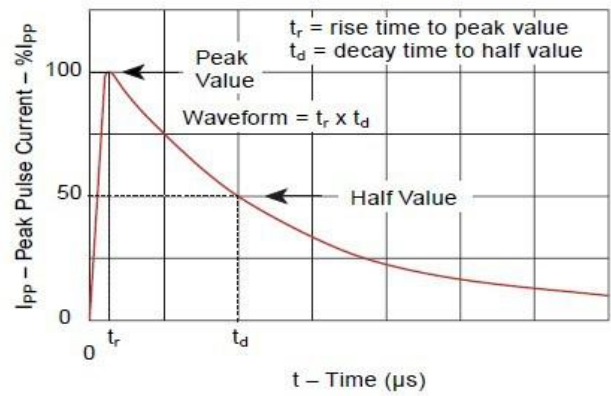
Package Type	Description	Packing Quantity	Industry Standard
LA	DO-15 Tape and Reel Pack	4000 PCS	N/A

Characteristics Curve

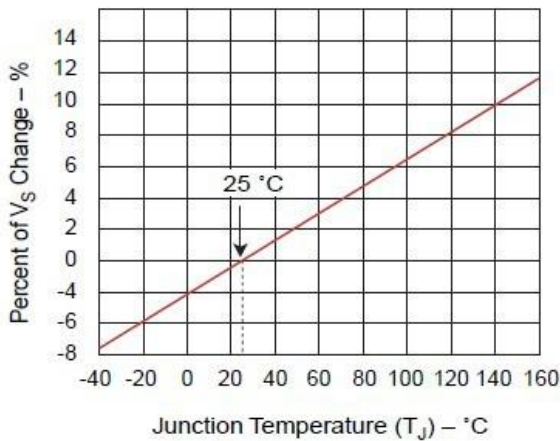
V-I Characteristics



Tr x Td Pulse Waveform



Normalized V_S Change Versus Junction Temperature



Normalized DC Holding Current Versus Case Temperature

