



Description

Fast Delivery Time

SXXA,SXXB,SXXC 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.

SXXA,SXXB,SXXC 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, SXXA,SXXB,SXXC Series devices offer absolute surge protection regardless of the surge current available and the rate of applied voltage (dv/dt). SXXA,SXXB,SXXC 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	V _{DRM} @I _{DRM} =5 μ A	V _s @100V/μs	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
S008A	6	25	50	800	2.2	4	45
S03A	25	40	50	800	2.2	4	45
S06A	58	77	150	800	2.2	4	35
S07A	65	88	150	800	2.2	4	50
S09A	75	98	150	800	2.2	4	40
S11A	90	130	150	800	2.2	4	35
S13A	120	160	150	800	2.2	4	35
S15A	140	180	150	800	2.2	4	40
S18A	170	220	150	800	2.2	4	40
S21A	180	240	150	800	2.2	4	40
S23A	190	260	150	800	2.2	4	45
S26A	220	300	150	800	2.2	4	35
S31A	275	350	150	800	2.2	4	35
S35A	320	400	150	800	2.2	4	30
S008B	6	25	50	800	2.2	4	60
S03B	25	40	50	800	2.2	4	65
S06B	58	77	150	800	2.2	4	45
S07B	65	88	150	800	2.2	4	45
S09B	75	98	150	800	2.2	4	40
S11B	90	130	150	800	2.2	4	40
S13B	120	160	150	800	2.2	4	40
S15B	140	180	150	800	2.2	4	35
S18B	170	220	150	800	2.2	4	65
S21B	180	240	150	800	2.2	4	60

Electrical Characteristics

continued



Part Number	V _{DRM} @I _{DRM} =5 μ A	V _s @100V/μs	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
S23B	190	260	150	800	2.2	4	50
S26B	220	300	150	800	2.2	4	45
S31B	275	350	150	800	2.2	4	45
S35B	320	400	150	800	2.2	4	40
S008C	6	25	50	800	2.2	4	75
S03C	25	40	50	800	2.2	4	75
S06C	58	77	150	800	2.2	4	55
S07C	65	88	150	800	2.2	4	60
S09C	75	98	150	800	2.2	4	65
S11C	90	130	150	800	2.2	4	55
S13C	120	160	150	800	2.2	4	60
S15C	140	180	150	800	2.2	4	50
S18C	170	220	150	800	2.2	4	55
S21C	180	240	150	800	2.2	4	85
S23C	190	260	150	800	2.2	4	65
S26C	220	300	150	800	2.2	4	65
S31C	275	350	150	800	2.2	4	55
S35C	320	400	150	800	2.2	4	50
S45C	400	540	150	800	2.2	4	45

Notes:

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

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


*For surge ratings,see next page.

Surge Ratings

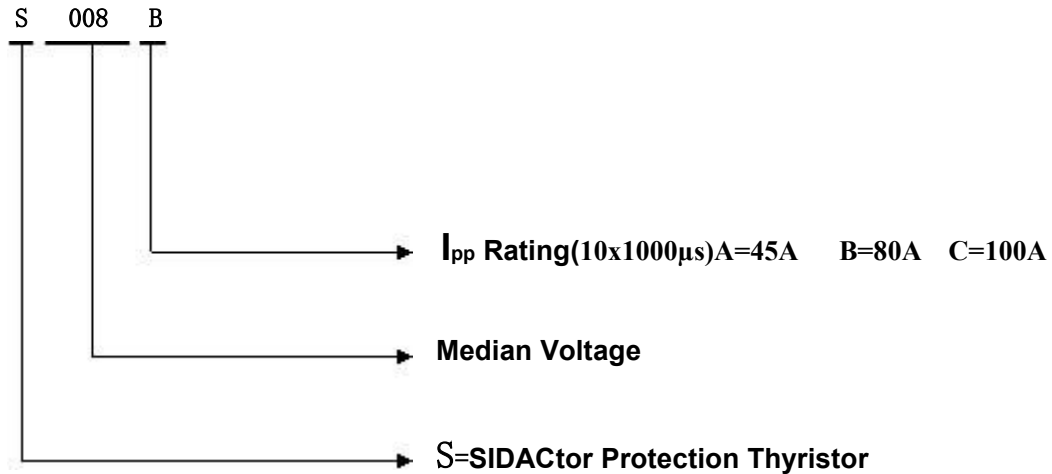


Series	I_{pp} 2x10 μ s	I_{pp} 8x20 μ s	I_{pp} 10x160 μ s	I_{pp} 10x560 μ s	I_{pp} 10x1000 μ s	I_{pp} 5x320 μ s	I_{pp} 5x310 μ s	I_{pp} 10x360 μ s	I_{TSM} 50/60Hz	di/dt
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps/ μ s
A	150	150	90	50	45	75	75	75	20	500
B	250	250	150	100	80	100	100	125	25	500
C	500	400	200	150	100	200	200	175	30	500

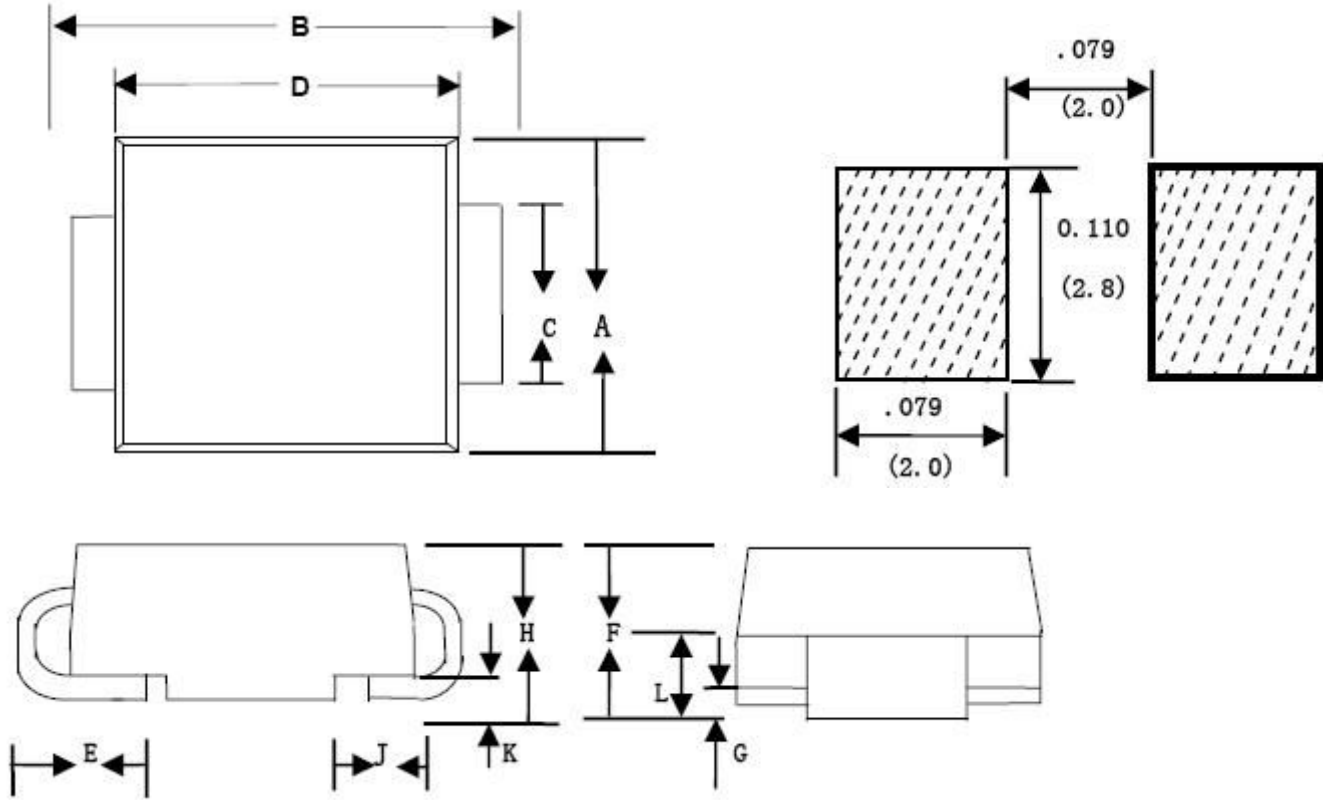
Thermal Considerations

Package	DO-214AA/SMB	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 prited circuit	90	$^{\circ}C/W$

Description of Part Number



Dimensions - DO-214AA



Dimension	Inches		Millimeters	
	Min	Max	Min	Max
A	0.134	0.155	3.40	3.94
B	0.205	0.22	5.21	5.59
C	0.075	0.083	1.90	2.11
D	0.166	0.185	4.22	4.70
E	0.036	0.056	0.91	1.42
F	0.073	0.087	1.85	2.2
G	0.002	0.008	0.05	0.20
H	0.077	0.094	1.95	2.40
J	0.043	0.053	1.09	1.35
K	0.008	0.014	0.20	0.35
L	0.039	0.049	0.99	1.24

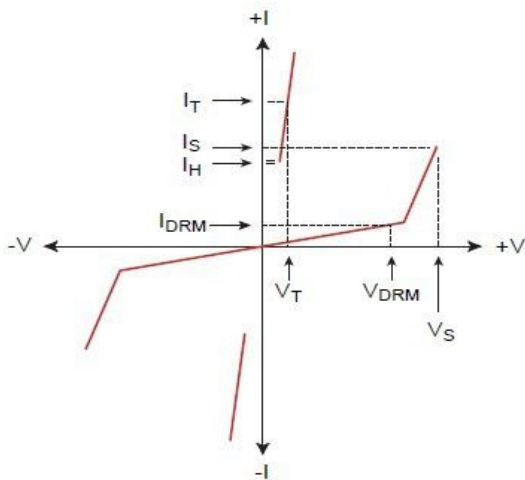
Packing Options



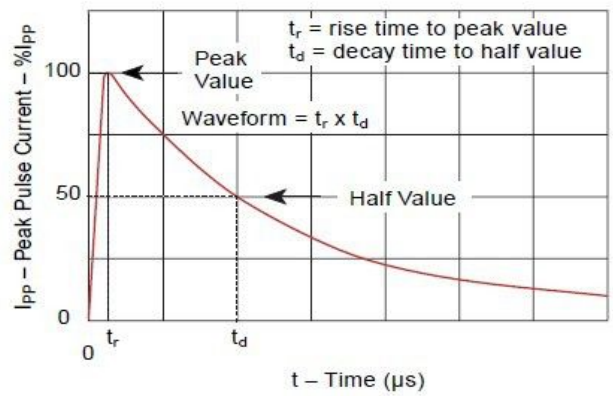
Package Type	Description	Packing Quantity	Industry Standard
A,B,C	DO-214AA Reel Pack	2500 PCS	EIA-481-D

Characteristics Curve

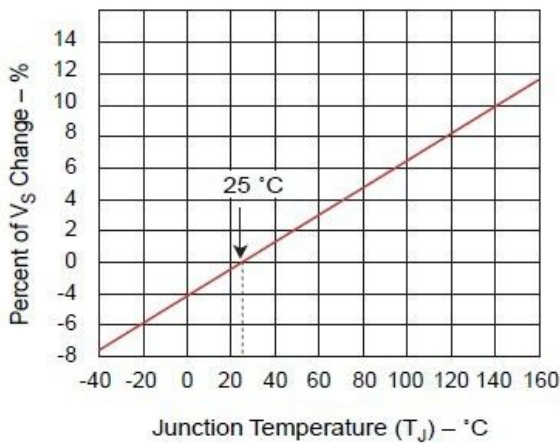
V-I Characteristics



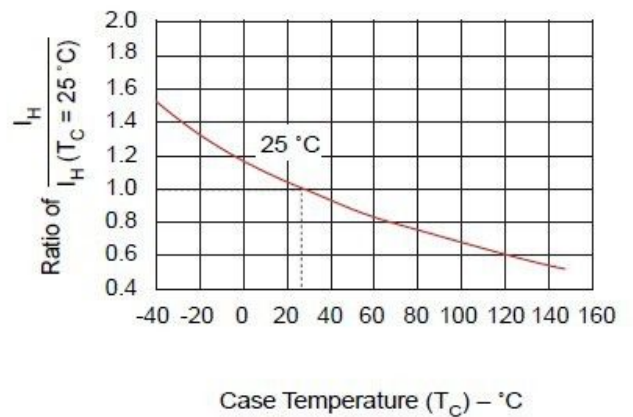
Tr x Td Pulse Waveform



Normalized Vs Change Versus Junction Temperature



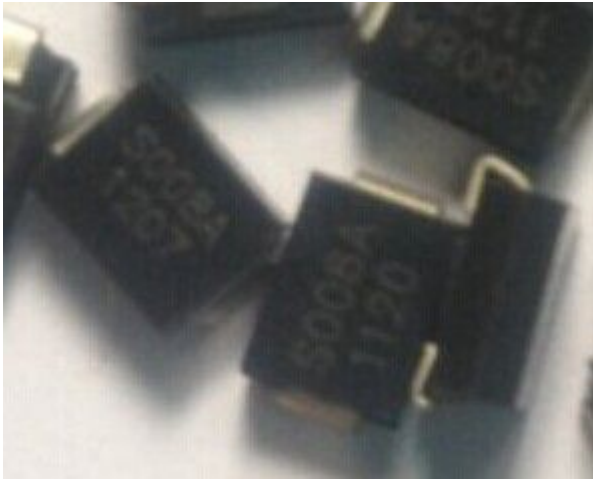
Normalized DC Holding Current Versus Case Temperature



Sample pictures

S008A

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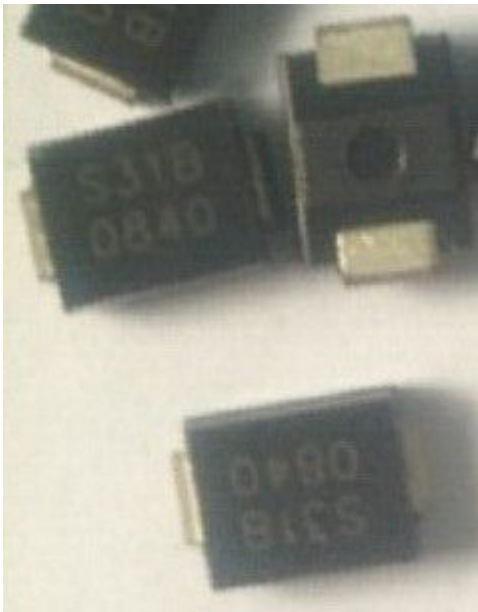
S008B

Fast Delivery Time



S35B

Fast Delivery Time



S06C

Fast Delivery Time

