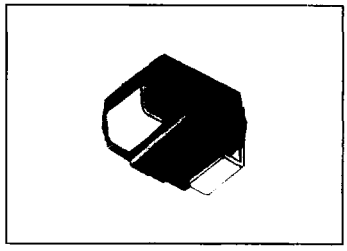
DO-214 "SB" Series



The DO-214 "SB" series SIDACtor is a 100A rated solid state protection device designed for telecommunications applications such as modems, line cards, fax machines, etc.

The "SB" series SIDACtor is used to help equipment meet various regulatory requirements including: Bellcore 1089, ITU K.20 & K.21, IEC 950, UL 1459 & 1950 and FCC Part 68.

Electrical Parameters

Part Number	V_{DRM} Volts	V_S Volts	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps	I_H mAmps	C_O pF
P0080SB	5	15	5	5	800	1	150	100
P0300SB	25	40	5	5	800	1	150	100
P0640SB	58	77	5	5	800	1	150	60
P0720SB	65	88	5	5	800	1	150	60
P0800SB	75	98	5	5	800	1	150	60
P1100SB	90	130	5	5	800	1	150	60
P1300SB	120	160	5	5	800	1	150	40
P1500SB	140	180	5	5	800	1	150	40
P1800SB	160	220	5	5	800	1	150	40
P2300SB	190	260	5	5	800	1	150	30
P2600SB	220	300	5	5	800	1	150	30
P3100SB	275	350	5	5	800	1	150	30
P3500SB	300	400	5	5	800	1	150	30

Notes:

- All measurements are made at an ambient temperature of 25°C.
- Listed SIDACtors are bi-directional. All electrical parameters & surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}.
- V_S is measured at 100V/µs.
- Special voltage (V_S & V_{DRM}) and holding current (I_H) requirements are available upon request.
- Off-state capacitance is measured at 1MHz with a 2 volt bias and is a typical value.

Surge Ratings

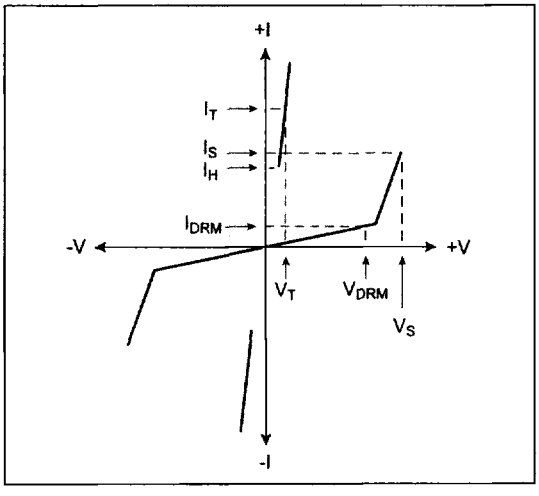
Series	I_{PP} 10x160µs Amps	I_{PP} 10x560µs Amps	I_{TSM} 60Hz Amps	di/dt Amps/µs
SB	150	100	30	500

Teccor Electronics, Inc.
(972) 580-7777

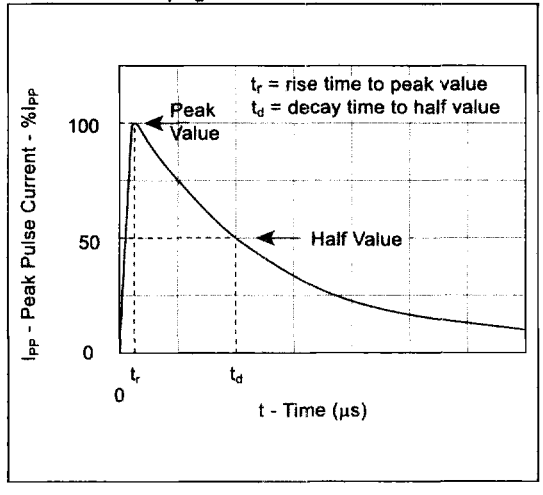
Thermal Considerations

Series	Symbol	Parameter	Value	Unit
SB	T_j	Junction Temperature Range	-40 to +150	°C
	T_s	Storage Temperature Range	-65 to +150	°C
	T_c	Maximum Case Temperature	+75	°C
	$R_{\theta jc}$	Thermal Resistance: junction to case	+28	°C/W
	$R_{\theta ja}$	Thermal Resistance: junction to ambient	+90	°C/W

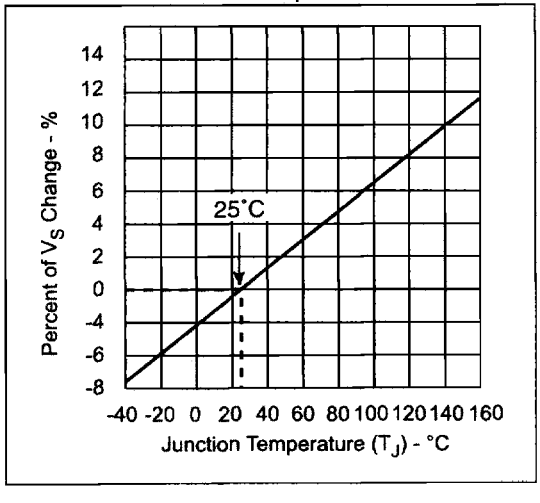
V-I Characteristics



t_rxt_d Pulse Wave-form



Normalized V_S Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature