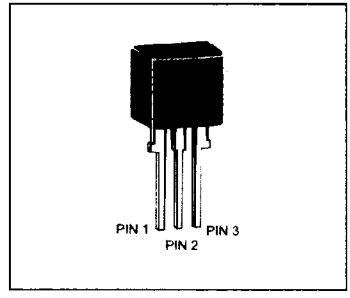
Balanced Three Chip TO-220 "AB" Series



The three chip TO-220 "AB" series SIDACtor is a 100A rated solid state protection device designed for telecommunications systems that reference Tip and Ring to earth ground. Applications include any piece of transmission equipment that requires balanced protection.

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

Electrical Parameters

Part Number	V_{DRM} Volts pins 1-2, 3-2	V_S Volts pins 1-2, 3-2	V_{DRM} Volts pins 1-3	V_S Volts pins 1-3	V_T Volts	I_{DRM} µAmps	I_S mAmps	I_T Amps	I_H mAmps	C_O pF
P1553AB	130	180	130	180	10	5	800	1	150	40
P1803AB	150	210	150	210	10	5	800	1	150	40
P2103AB	170	250	170	250	10	5	800	1	150	40
P2353AB	200	270	200	270	10	5	800	1	150	40
P2703AB	230	300	230	300	10	5	800	1	150	30
P3203AB	270	350	270	350	10	5	800	1	150	30
P3403AB	300	400	300	400	10	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
AB	150	100	30	500

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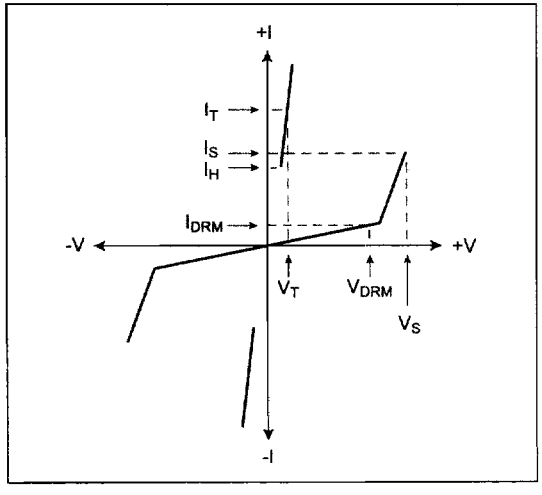
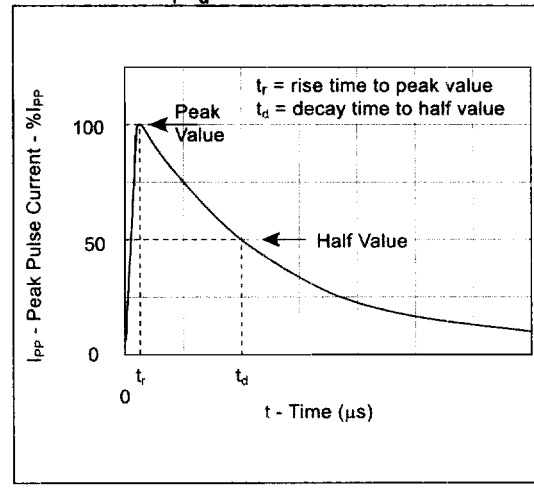
Thermal Considerations

Series	Symbol	Parameter	Value	Unit
AB	T_j	Junction Temperature Range	-40 to +150	°C
	T_s	Storage Temperature Range	-65 to +150	°C
	T_c	Maximum Case Temperature	+115	°C
	$R_{\theta jc}$	Thermal Resistance: junction to case	+12	°C/W
	$R_{\theta ja}$	Thermal Resistance: junction to ambient	+50	°C/W

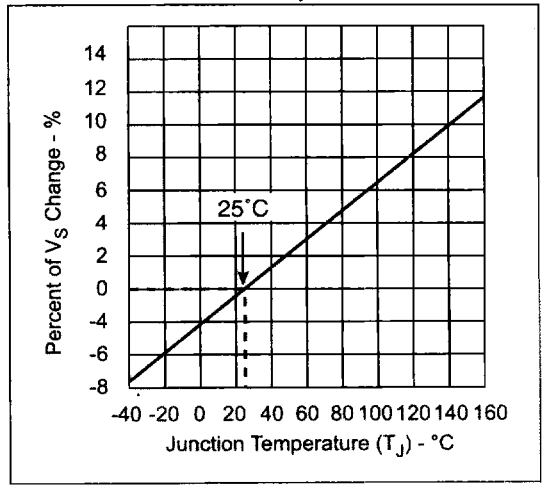
V-I Characteristics



$t_r x t_d$ Pulse Wave-form



Normalized V_S Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature