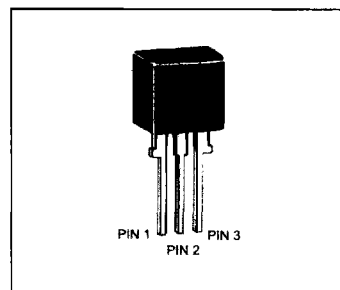


Two Chip TO-220 "AC" Series

The two chip TO-220 "AC" series SIDACTor is a 500A rated solid state protection device designed for telecommunications applications that reference Tip and Ring to earth ground but do not require balanced protection. Applications include xDSL transmission equipment, line cards, etc.

The "AC" 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 without the use of any additional series impedance.



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
P0602AC	25	40	50	80	5	5	800	1	150	200
P1402AC	58	77	116	154	5	5	800	1	150	120
P1602AC	65	95	130	190	5	5	800	1	150	120
P2202AC	90	130	180	260	5	5	800	1	150	120
P2702AC	120	160	240	320	5	5	800	1	150	80
P3002AC	140	180	280	360	5	5	800	1	150	80
P3602AC	160	220	320	440	5	5	800	1	150	80
P4202AC	190	250	380	500	5	5	800	1	150	60
P4802AC	220	300	440	600	5	5	800	1	150	60
P6002AC	275	350	550	700	5	5	800	1	150	60

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.

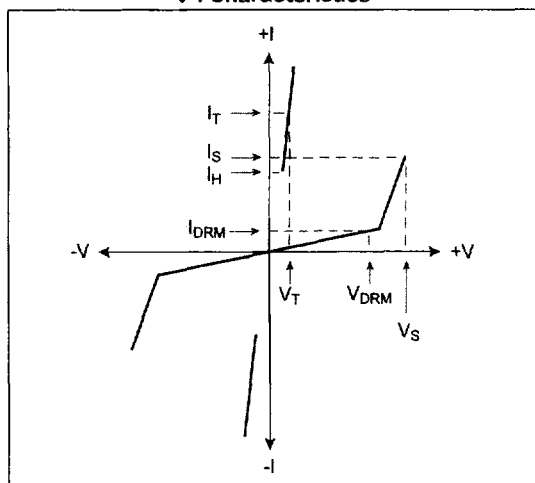
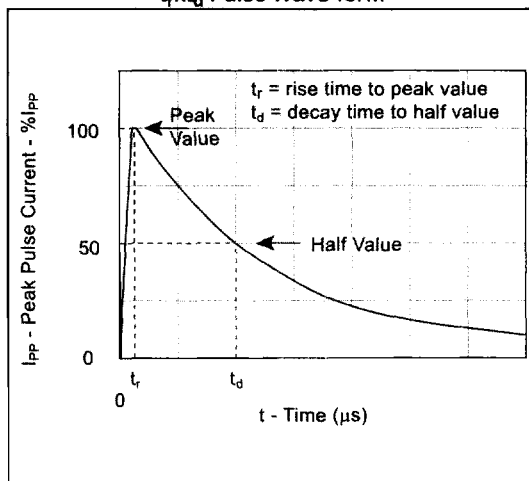
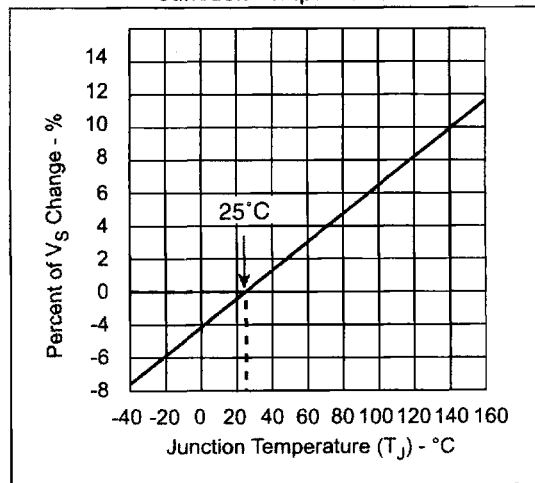
Surge Ratings

Series	I _{pp} 2x10μs Amps	I _{pp} 10x160μs Amps	I _{pp} 10x1000μs Amps	I _{tSM} 60Hz Amps	di/dt Amps/μs
AC	500	200	100	60	500

Thermal Considerations

Series	Symbol	Parameter	Value	Unit
AC	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, t_d Pulse Wave-formNormalized V_S Change vs. Junction Temperature

Normalized DC Holding Current vs. Case Temperature

