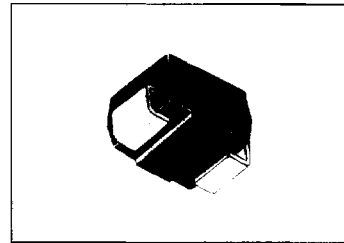


## DO-214 "SC" Series

The DO-214 "SC" series SIDACTor is a 500A rated solid state protection device designed for telecommunications systems that require Bellcore 1089 compliance without the use of additional series resistance.

Applications include xDSL transmission equipment, line cards, etc. The "SC" 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 <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> μAmps	I <sub>S</sub> Amps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps	C <sub>O</sub> pF
P0080SC	5	15	5	5	800	1	150	200
P0300SC	25	40	5	5	800	1	150	200
P0640SC	58	77	5	5	800	1	150	120
P0720SC	65	88	5	5	800	1	150	120
P0800SC	75	98	5	5	800	1	150	120
P1100SC	90	130	5	5	800	1	150	120
P1300SC	120	160	5	5	800	1	150	80
P1500SC	140	180	5	5	800	1	150	80
P1800SC	160	220	5	5	800	1	150	80
P2300SC	190	260	5	5	800	1	150	60
P2600SC	220	300	5	5	800	1	150	60
P3100SC	275	350	5	5	800	1	150	60
P3500SC	300	400	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<sub>DRM</sub> is measured at I<sub>DRM</sub>.
- V<sub>S</sub> is measured at 100V/μs.
- Special voltage (V<sub>S</sub> & V<sub>DRM</sub>) and holding current (I<sub>H</sub>) requirements are available upon request.
- Off-state capacitance is measured at 1MHz with a 2 volt bias and is a typical value.

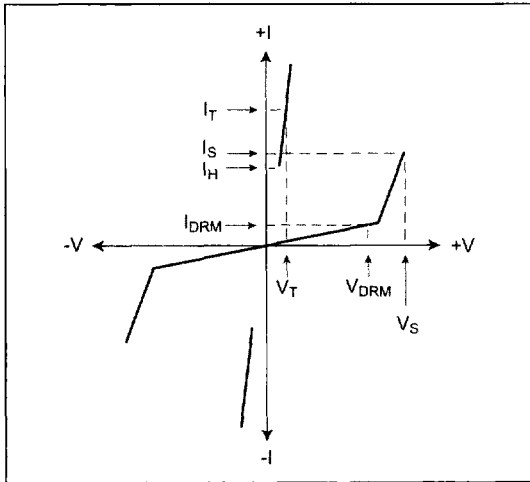
### Surge Ratings

Series	I <sub>pp</sub> 2x10μs Amps	I <sub>pp</sub> 10x160μs Amps	I <sub>pp</sub> 10x1000μs Amps	I <sub>rsm</sub> 60Hz Amps	di/dt Amps/μs
SC	500	200	100	60	500

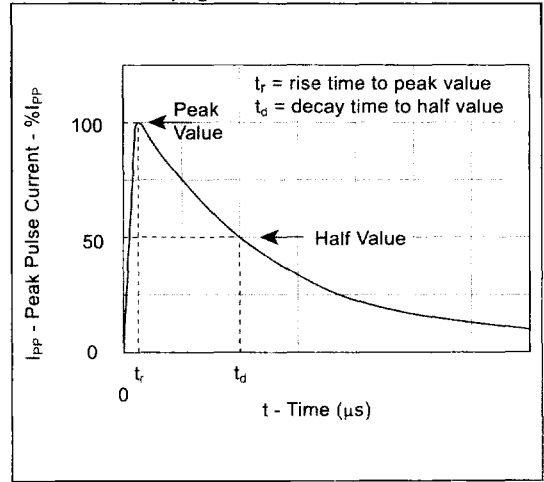
### Thermal Considerations

Series	Symbol	Parameter	Value	Unit
SC	$T_j$	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	+26	°C/W
	$R_{\theta ja}$	Thermal Resistance: junction to ambient	+85	°C/W

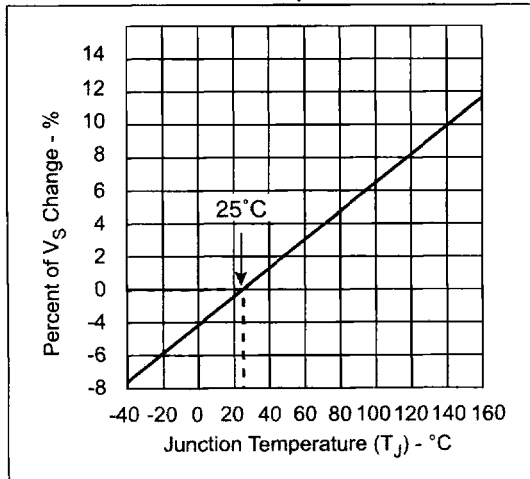
V-I Characteristics



$t_r, t_d$  Pulse Wave-form



Normalized  $V_S$  Change vs. Junction Temperature



Normalized DC Holding Current vs. Case Temperature

