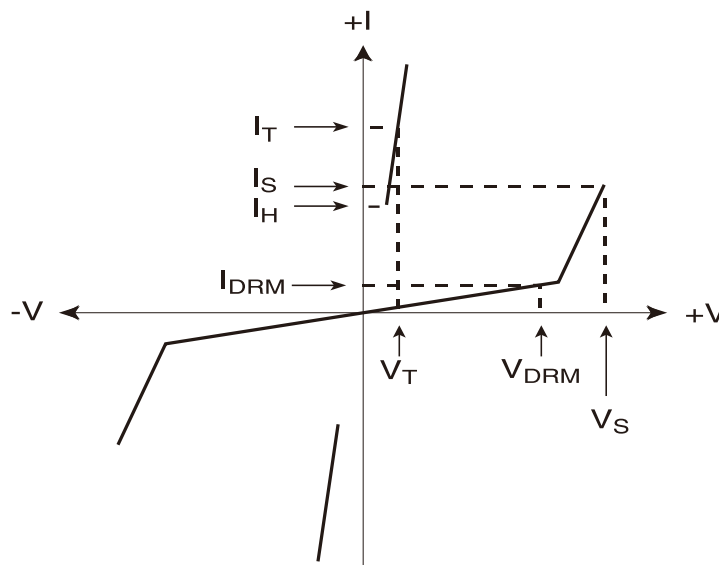


TSS components are solid state crowbar devices designed to protect telecom equipment during transient voltage conditions , as follows:

- ◆ 1.Excellent transient voltage suppression
- ◆ 2. Wide range of voltage ratings
- ◆ 3. Symmetrical V-I characteristics (Non Polarity)
- ◆ 4. Fast response
- ◆ 5. Steady operation for repeating surge
- ◆ 6.Low temperature coefficient
- ◆ 7.High reliability

CHARACTERISTICS



Parameter	Definition
C_o	Off-state Capacitance — maximum capacitance measured in off state
di/dt	Rate of Rise of Current — maximum rated value of the acceptable rate of rise in current over time
I_S	Switching Current — maximum current required to switch to on state
I_{DRM}	Leakage Current — maximum peak off-state current measured at V_{DRM}
I_H	Holding Current — minimum current required to maintain on state
I_{PP}	Peak Pulse Current — maximum rated peak impulse current
I_T	On-state Current — maximum rated continuous on-state current
V_S	Switching Voltage — maximum voltage prior to switching to on state
V_{DRM}	Peak Off-state Voltage — maximum voltage that can be applied while maintaining off state
V_T	On-state Voltage — maximum voltage measured at rated on-state current



P0080AX THRU P3500AX

Stand-off Voltage: 6.0 to 320V

Part Number	V _{DRM}	Max. Reverse Leakage @V _{DRM}	V _S @100V/μs	I _S	V _T @I _T	I _T	I _H	Capacitance @1MHz, 2V bias
	V	μA	V	mA	V	A	mA	pf
P0080AA	6	5	25	800	4	2.2	50	60
P0300AA	25	5	40	800	4	2.2	50	65
P0640AA	58	5	77	800	4	2.2	100	45
P0720AA	65	5	88	800	4	2.2	100	45
P1100AA	90	5	130	800	4	2.2	100	45
P2300AA	190	5	260	800	4	2.2	100	45
P2600AA	220	5	300	800	4	2.2	100	45
P3100AA	275	5	350	800	4	2.2	100	40
P3500AA	320	5	400	800	4	2.2	100	40

Part Numbering & Part Marking

Series	I _{pp} @2/20μs	I _{pp} @8/20μs	I _{pp} @10/560μs	V _p @10/700μs	I _{pp} @10/1000μs	I _{TSM} @50HZ	di/dt
	A	A	A	V	A	A	A/μs
A	150	120	35	2000	25	15	500

Fig1. Pulse Waveform

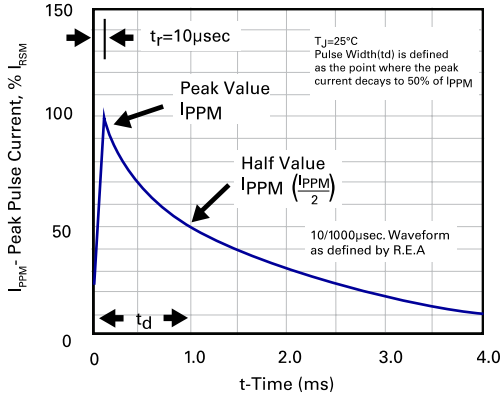


Figure 2. Pulse Derating Curve

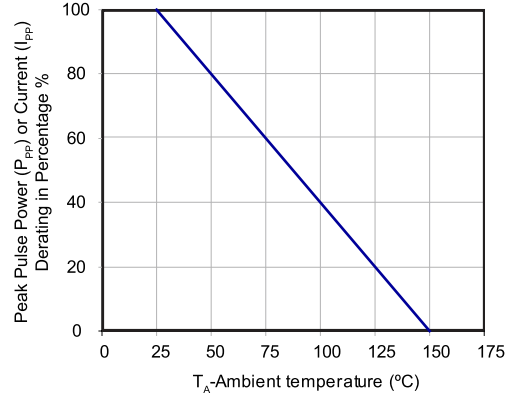


Figure 3. V_S Change vs. Junction Temperature

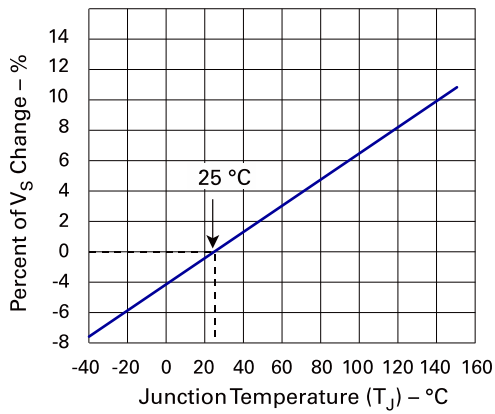
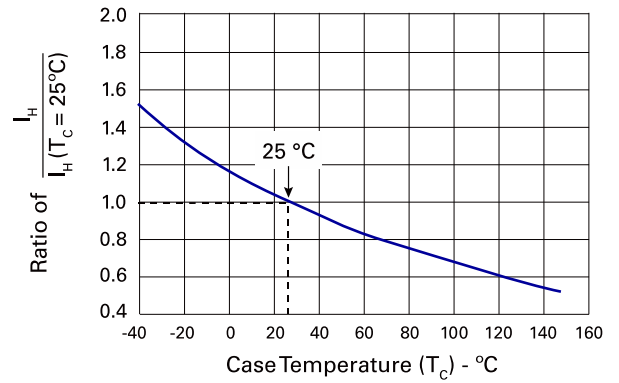
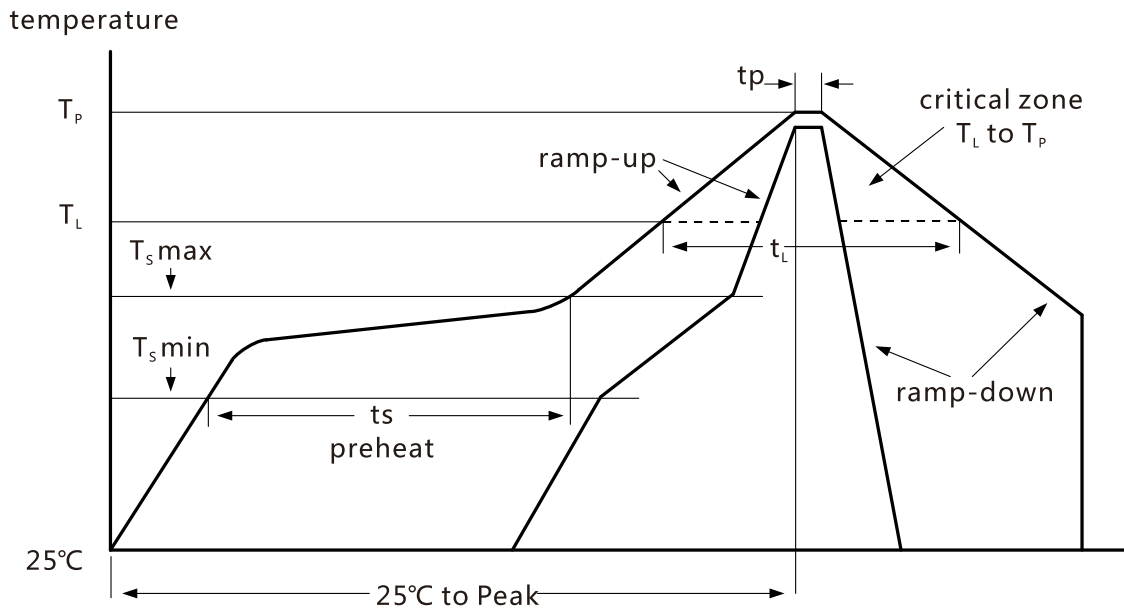


Figure 4. DC Holding Current vs. Case Temperature

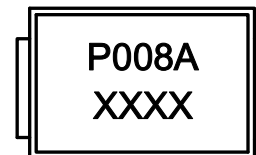
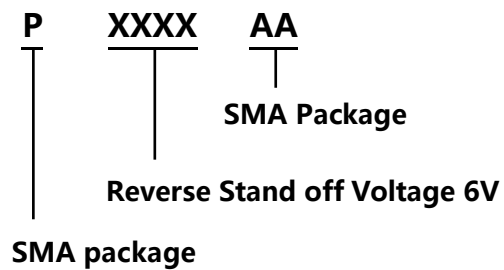


Reflow Soldering Profile

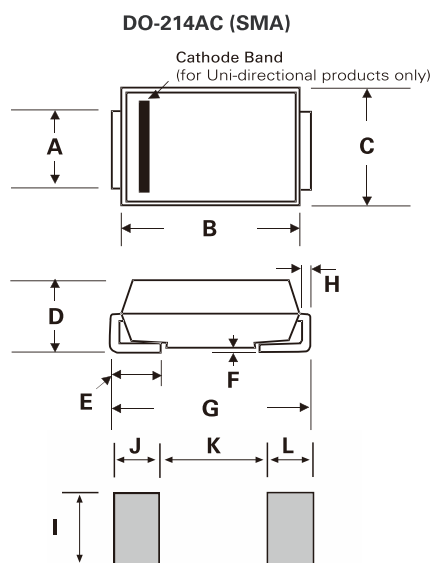


Profile Feature	SnPb eutectic assembly	Pb-free assembly
Average ramp-up rate ($T_{s,max}$ to T_p)	3°C/s maximum	3°C/s maximum
Preheat		
Temperature minimum ($T_{s,min}$)	100°C	150°C
Temperature maximum ($T_{s,max}$)	150°C	200°C
Time (t_{smin} to t_{smax})	60 s to 120 s	60 s to 180 s
Time maintained above		
Temperature (T_L)	183°C	217°C
Time (t_L)	60 s to 150 s	60 s to 150 s
Peak/classification temperature (T_p)	235°C	260°C
Number of allowed reflow cycles	3	3
Time within 5 °C of actual peak temperature (t_p)	10 s to 30 s	20 s to 40 s
Ramp-down rate	6°C/s maximum	6°C/s maximum
Time 25 °C to peak temperature	6 minutes maximum	8 minutes maximum

Part Numbering & Part Marking



Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.049	0.065	1.25	1.65
B	0.157	0.177	3.99	4.5
C	0.1	0.11	2.54	2.90
D	0.078	0.09	1.98	2.29
E	0.03	0.06	0.78	1.52
F	-	0.008	-	0.203
G	0.194	0.208	4.93	5.28
H	0.006	0.012	0.152	0.305
I	0.07	-	1.8	-
J	0.082	-	2.1	-
K	-	0.09	-	2.3
L	0.082	-	2.1	

Packaging

Part number	Component Package	Quantity	Packaging Option
P0080AA	SMA	2,000pcs	7" REEL
P0080AA	SMA	5,000pcs	13" REEL