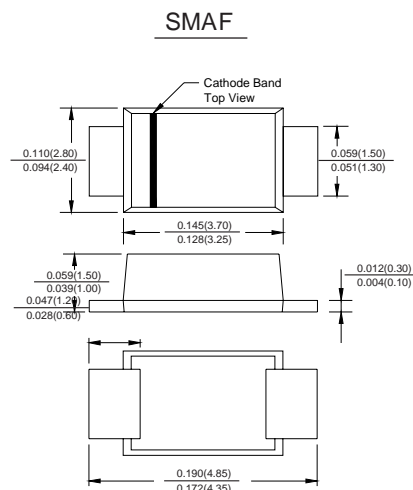


### FEATURES

- ✧ Low profile package
  - ✧ For surface mounted applications
  - ✧ High current capability
  - ✧ Built-in strain relief, ideal for automated placement
  - ✧ Plastic package has Underwriters Laboratory
  - ✧ Flammability Classification 94V-0
- High temperature soldering: 260°C/10 seconds at terminals

### MECHANICAL DATA

- ✧ Case: JEDEC SMAFL, molded plastic over passivated chip
- ✧ Terminals: Solder Plated, solderable per MIL-STD- 750, Method 2026
- ✧ Polarity: Color band denotes cathode end



### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S1TAF	S1WAF	S1XAF	S1YAF	UNITS
Marking code		<b>S1T</b>	<b>S1W</b>	<b>S1X</b>	<b>S1Y</b>	
Maximum repetitive peak reverse voltage	$V_{RRM}$	1300	1600	1800	2000	V
Maximum RMS voltage	$V_{RWS}$	760	820	880	940	V
Maximum DC blocking voltage	$V_{DC}$	1300	1600	1800	2000	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{F(AV)}$ A	1.0				
Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3mssingle half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0				A

### Thermal Characteristics

Characteristic	Symbol	S1TAF	S1WAF	S1XAF	S1YAF	UNITS
Typical junction capacitance (NOTE 1)	$C_J$	12.0				p F
Typical thermal resistance (NOTE 2)	$R_{\theta JL}$	50.0				°C/W
Operating junction and storage temperature range	$T_{JTSTG}$	-55-----+150				°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

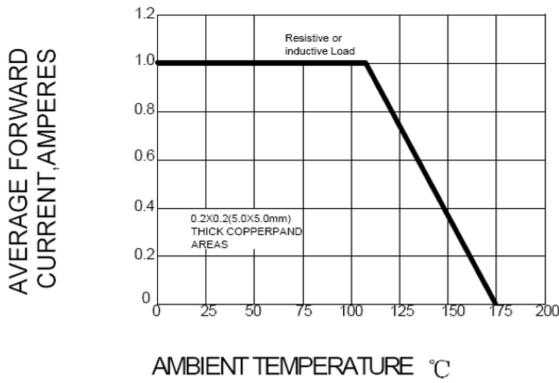
Characteristic	Symbol	S1TAF	S1WAF	S1XAF	S1YAF	UNITS
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.15				V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 125.0				$\mu$ A

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

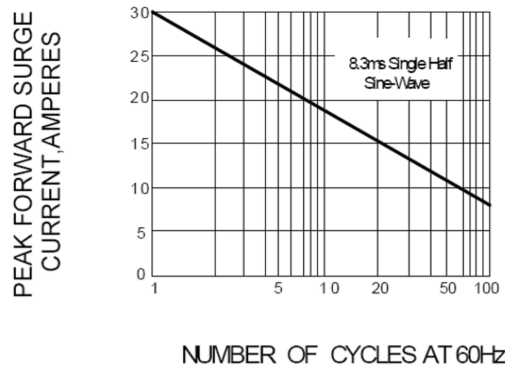
2. Thermal resistance from junction to lead



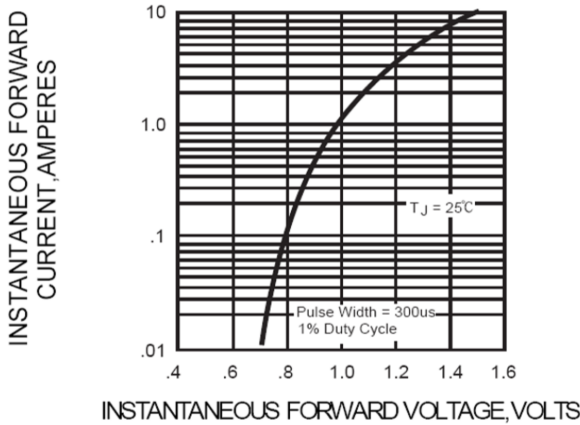
**FIG.1 – FORWARD DERATING CURVE**



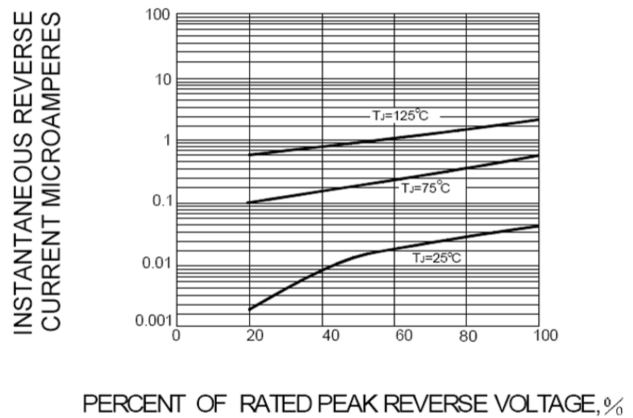
**FIG.2 PEAK FORWARD SURGE CURRENT**



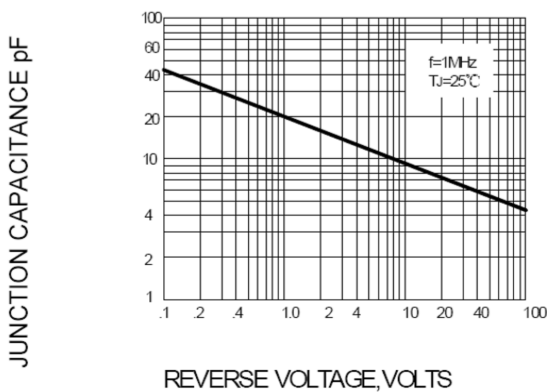
**FIG.3 -- TYPICAL FORWARD CHARACTERISTICS**



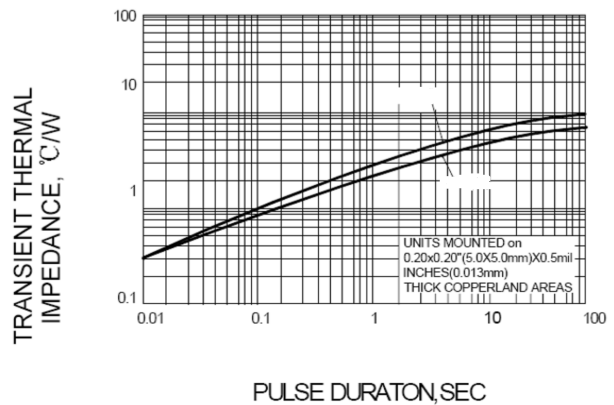
**FIG.4 -- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6-TRANSIENT THERMAL IMPEDANCE**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	5000/REEL	80000	36X30.6X31	12.00	11.00