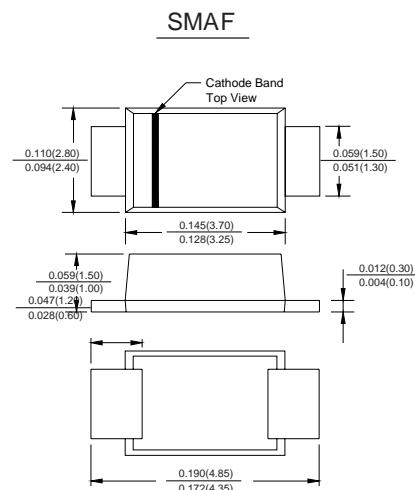


FEATURES

- ✧ 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		S1T	S1W	S1X	S1Y	
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				μ 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

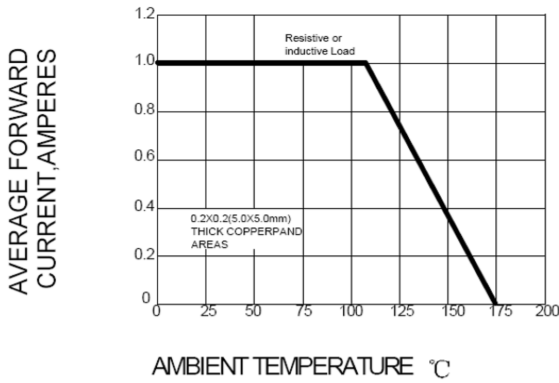


FIG.2 PEAK FORWARD SURGE CURRENT

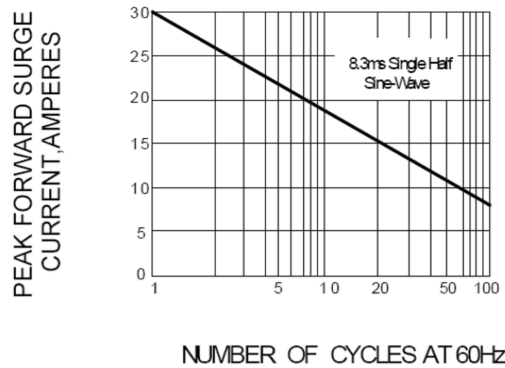


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

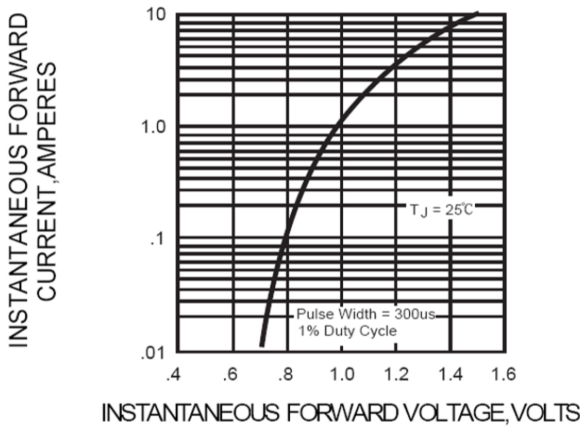


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

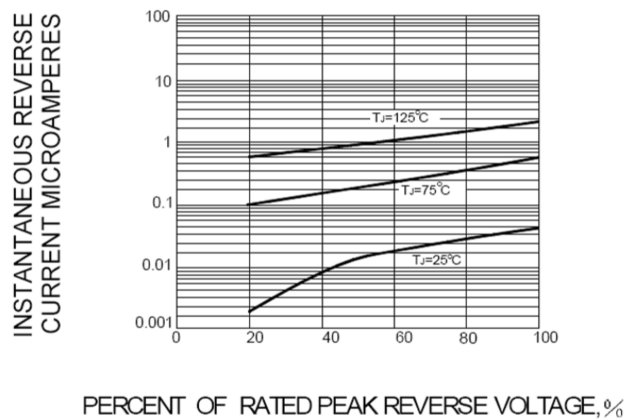


FIG.5-TYPICAL JUNCTION CAPACITANCE

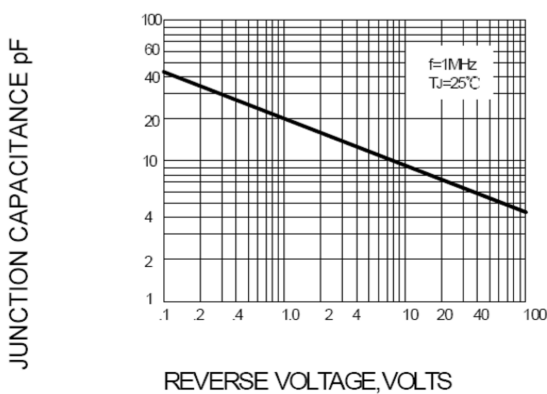
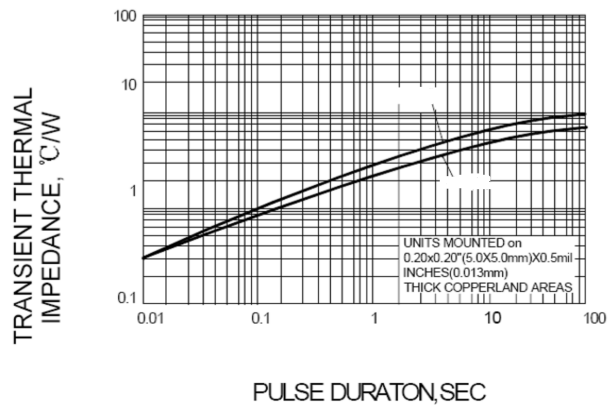


FIG.6-TRANSIENT THERMAL IMPEDANCE



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	3000/REEL	120000	30.5X30.5X42.5	12.00	11.00
PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	5000/REEL	100000	30.5X30.5X42.5	10.00	9.00