

SURFACE MOUNT ULTRA FAST RECTIFIER	Reverse Voltage - 50 to 1000 Volts Forward Current -2.0 Ampere
<p style="text-align: center;">SMAF</p> <p style="text-align: center;"><i>Dimensions in inches and (millimeters)</i></p>	<p>Features</p> <ul style="list-style-type: none"> ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 ◆ Idea for printed circuit board ◆ Glass passivated Junction chip ◆ Low reverse leakage ◆ High forward surge current capability ◆ High temperature soldering guaranteed 250°C/10 seconds at terminals <p>Mechanical Data</p> <p>Case : Molded plastic body</p> <p>Terminals : Solder plated, solderable per MIL-STD-750, Method 2026</p> <p>Polarity : Polarity symbol marking on body</p> <p>Mounting Position : Any</p> <p>Weight : 0.0014 ounce, 0.038 grams</p>

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	US2AF	US2BF	US2DF	US2GF	US2JF	US2KF	US2MF	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	2.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50.0							A
Maximum instantaneous forward voltage at 2.0A	V_F	1.0		1.4		1.7		V	
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0 500							μA
Maximum reverse recovery time (Note 1)	T_{rr}	50				75			ns
Typical junction capacitance (Note 2)	C_J	50.0							pF
Typical thermal resistance	R_{qJA}	70.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

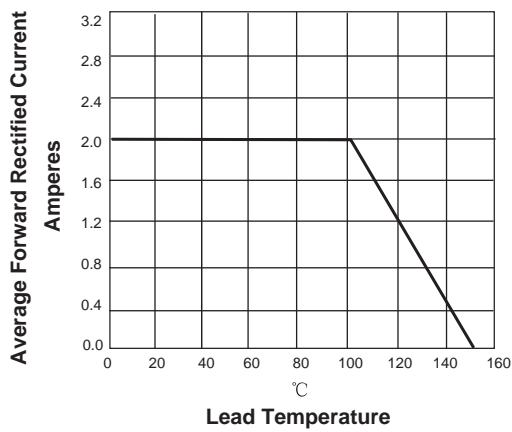


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

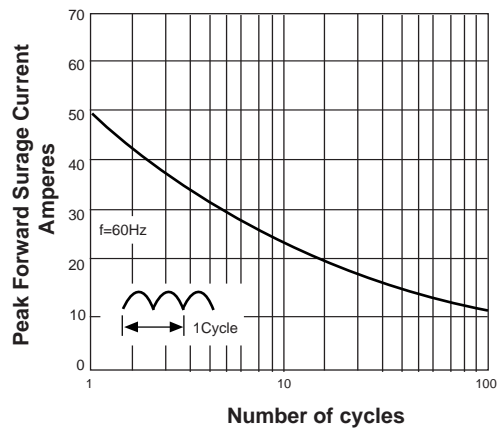


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

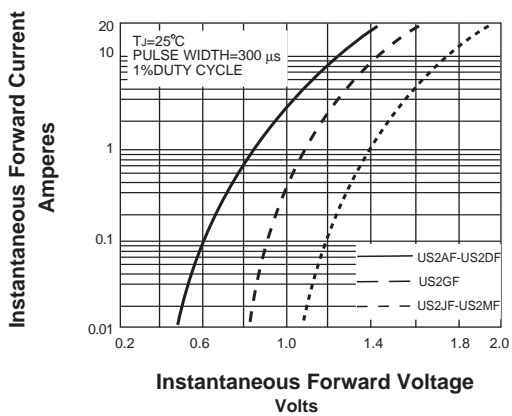


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

