

SURFACE MOUNT HIGH EFFICIENCY RECTIFIER	Reverse Voltage - 50 to 1000 Volts Forward Current -1.0 Ampere								
SOD-123FL <i>Dimensions in inches and (millimeters)</i>	Features <ul style="list-style-type: none"> ◆ Glass passivated device ◆ Ideal for surface mouted applications ◆ Low reverse leakage ◆ Metallurgically bonded construction ◆ High temperature soldering guaranteed: 260°C/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension Mechanical Data Case: SOD-123FL molded plastic body over passivated chip Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026 Polarity: Color band denotes cathode end Mounting Position: Any Weight: 0.0007 ounce, 0.02 grams								
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%.									
	SYMBOLS	US1AW U1A	US1BW U1B	US1DW U1D	US1GW U1G	US1JW U1J	US1KW U1K	US1MW U1M	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	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25.0							A
Maximum instantaneous forward voltage at1.0A	V_F	1.0		1.4	1.7			V	
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$	I_R	5.0				100.0			μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				75			ns
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	95							$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^{\circ}C$
Note: 1.Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$. 2.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas									

RATINGS AND CHARACTERISTIC CURVES US1AW THRU US1MW

FIG. 1- FORWARD CURRENT DERATING CURVE

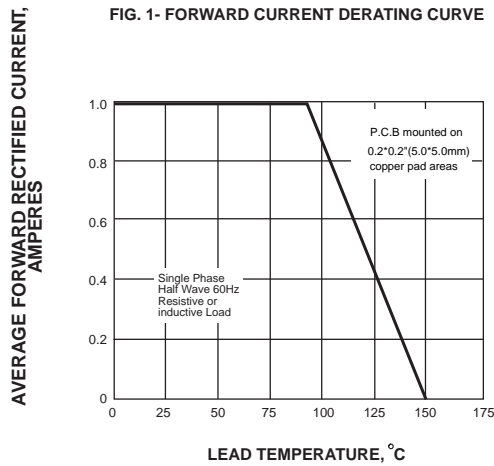


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

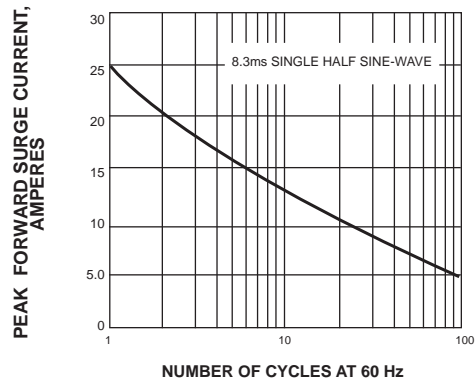


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

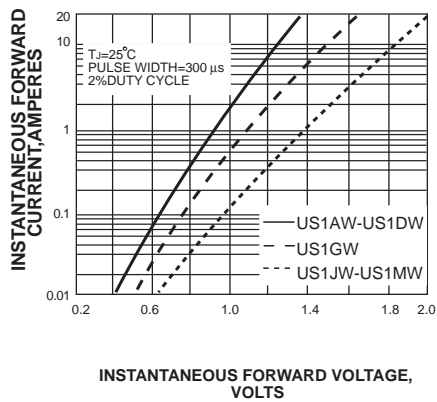


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

