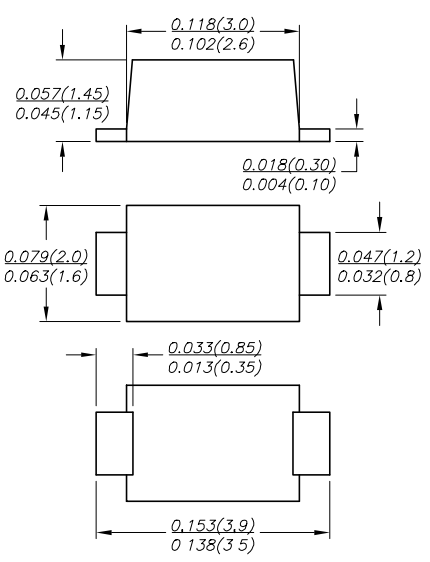


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER	Reverse Voltage - 20 to 200 Volts Forward Current - 1.0 Ampere
SOD-123FL  <p><i>Dimensions in inches and (millimeters)</i></p>	Features <ul style="list-style-type: none"> ➤ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 ➤ For surface mounted applications ➤ Built-in strain relief, ideal for automated placement ➤ Low reverse leakage ➤ High forward surge current capability ➤ High temperature soldering guaranteed 250°C/10 seconds at terminals Mechanical Data <p>Case : Molded plastic body Terminals : Solder plated, solderable per MIL-STD-750, Method 2026 Polarity : Polarity symbol marking on body Mounting Position : Any Weight : 0.0007 ounce, 0.02 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	DS12W	DS14W	DS16W	DS18W	DS110W	DS115W	DS120W	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	0.55	0.70	0.85	0.95				V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	0.5 50			0.05 10			mA	
Typical thermal resistance	R_{qJA}	85.0							°C/W
Operating junction temperature range	T_J	-55 to +125			-55 to +150				°C
Storage temperature range	T_{STG}	-55 to +150							°C

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

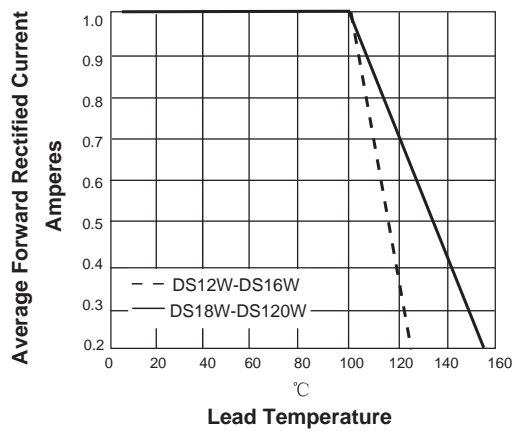


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

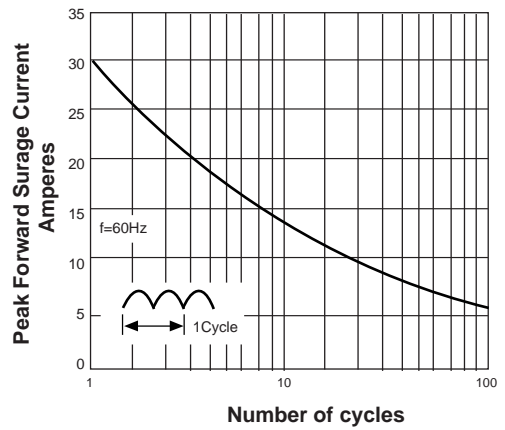


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

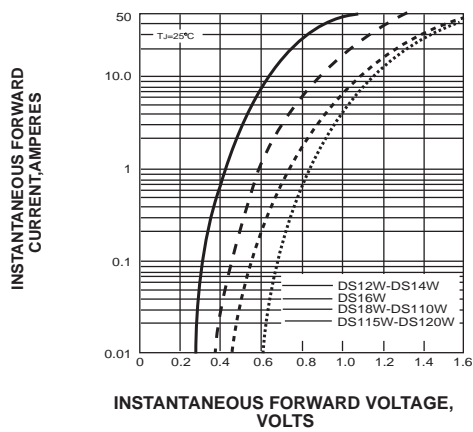


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

