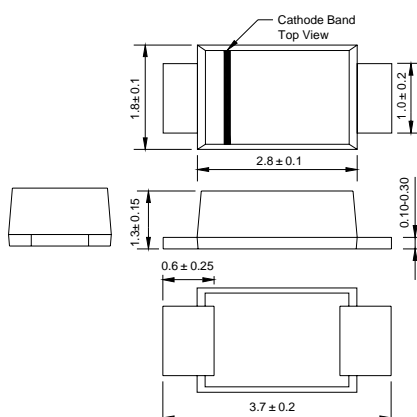


ES1DW

<p style="text-align: center;">SOD-123FL</p>  <p style="text-align: center;">Dimensions in millimeters</p>	<p style="text-align: center;">FEATURES</p> <ul style="list-style-type: none"> ◆ Glass passivated device ◆ Ideal for surface mounted applications ◆ Low reverse leakage ◆ Metallurgically bonded construction ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension <p style="text-align: center;">MECHANICAL DATA</p> <p>Case: JEDEC 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</p>
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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%.

Catalog Number	SYMBOLS	ES1DW E1D	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	200	VOLTS
Maximum RMS voltage	V_{RMS}	140	VOLTS
Maximum DC blocking voltage	V_{DC}	200	VOLTS
Maximum average forward rectified current	$I_{(AV)}$	1.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0	Amps
Maximum instantaneous forward voltage at 1.0A	V_F	0.95	Volts
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}	35	ns
Typical junction capacitance (NOTE 2)	C_J	10	pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	85	K/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

Note: 1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. PCB mounted on 0.2" x 0.2" (5.0 x 5.0mm) copper pad area.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

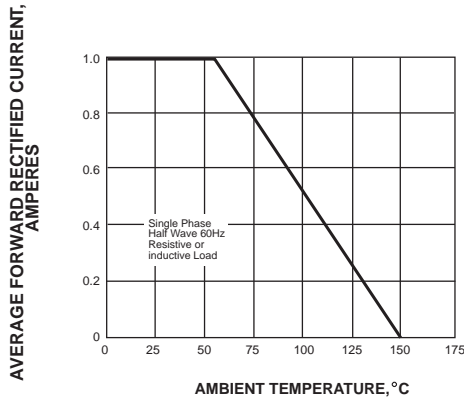


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

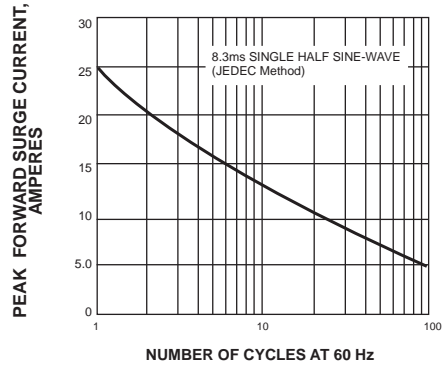


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

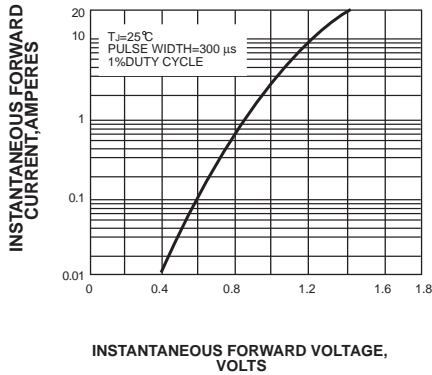


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

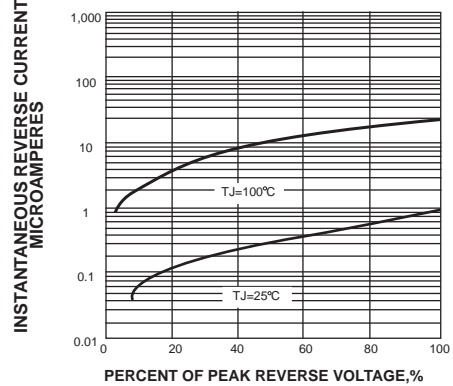


FIG. 5-TYPICAL JUNCTION CAPACITANCE

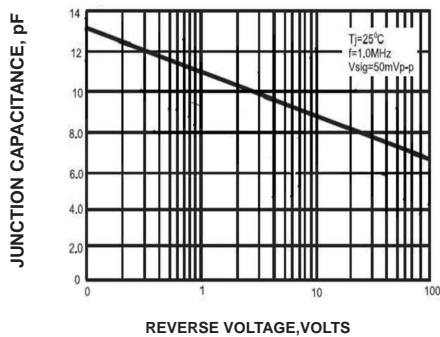


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

