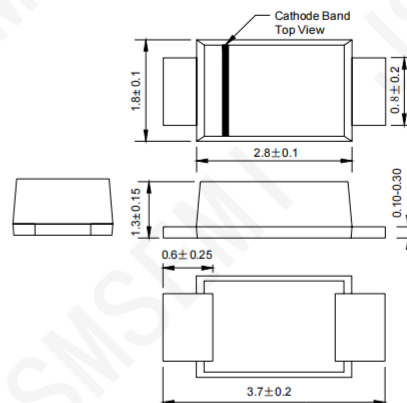


FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Glass passivated chip junction
- ◆ High temperature soldering: 250°C/10 seconds at terminals

MECHANICAL DATA

- ◆ **Case:** JEDEC DO-214AC molded plastic over passivated chip
- ◆ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Weight:** 0.002 ounce, 0.064 gram



Dimensions in millimeters

Dimensions are in inches and (millimeters)

SOD-123FL

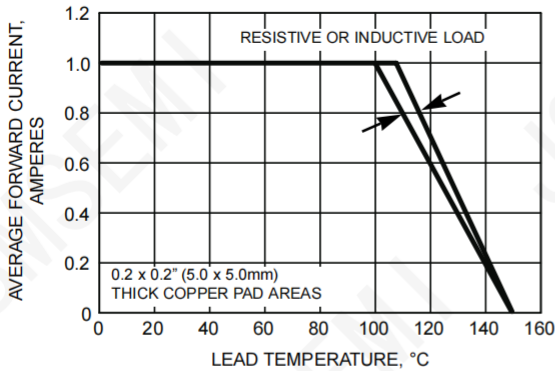
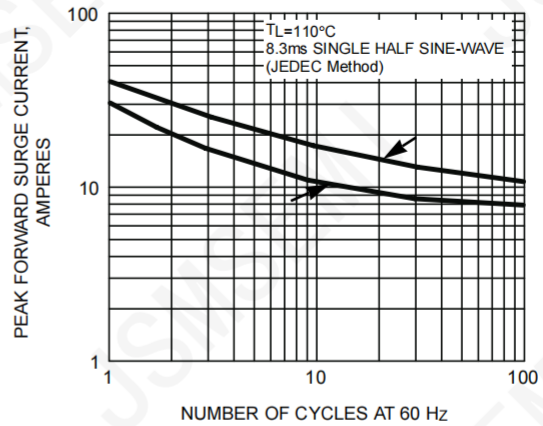
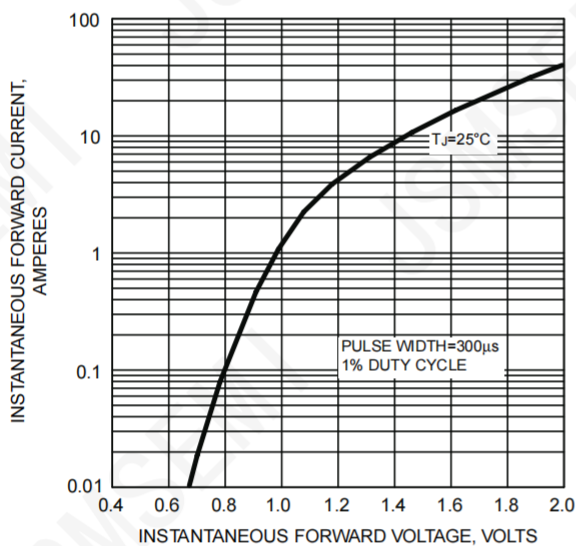
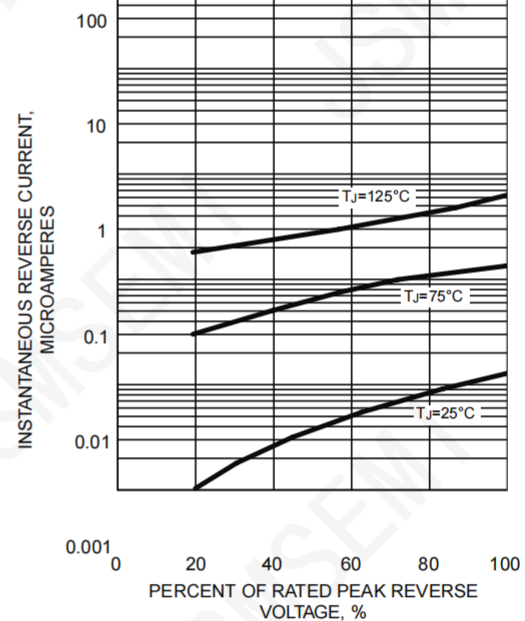
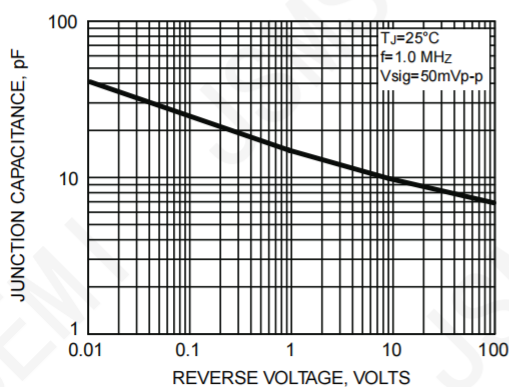
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	SYMBOLS	G1M	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	1000	Volts
Maximum RMS voltage	V_{RMS}	700	Volts
Maximum DC blocking voltage	V_{DC}	1000	Volts
Maximum average forward rectified current See Figure 1	$I_{(AV)}$	1.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=110^{\circ}\text{C}$	I_{FSM}	30.0	Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.10	Volts
Maximum DC reverse current at Rated DC blocking voltage $T_A=25^{\circ}\text{C}$ $T_A=125^{\circ}\text{C}$	I_R	5.0	μA
		50.0	
Typical reverse recovery time (NOTE 1)	t_{rr}	1.8	μs
Typical junction capacitance (NOTE 2)	C_J	12.0	pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	85.0	$^{\circ}\text{C/W}$
		30.0	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

NOTES:

- (1) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient and from junction to lead mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATING 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 - TRANSIENT THERMAL IMPEDANCE
