

SOD1EM

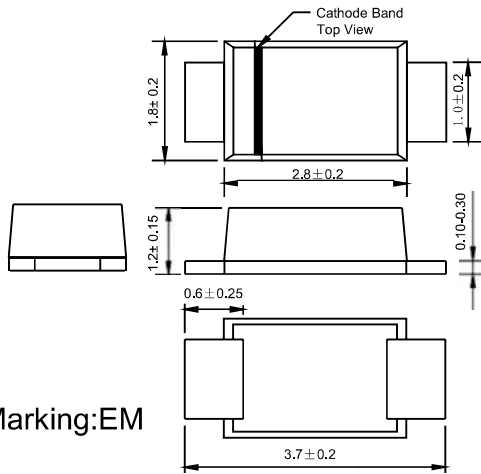
SURFACE MOUNT SUPER FAST RECTIFIER

Reverse Voltage -1000Volts Forward Current - 1.0 Ampere

SOD-123FL

FEATURES

- 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



Marking:EM

Dimensions in millimeters

MECHANICAL DATA

Case: JEDEC SOD-123FL molded plastic body
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	SOD1EM	UNITS
Maximum repetitive 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	$I_{(AV)}$	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	1.7	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	$^\circ C$

- 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*0.2" (5.0*5.0mm) copper pad area.



AGERTECH MICROELECTRONICS

Subsidiary of Sino-Talent International Holdings Ltd.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

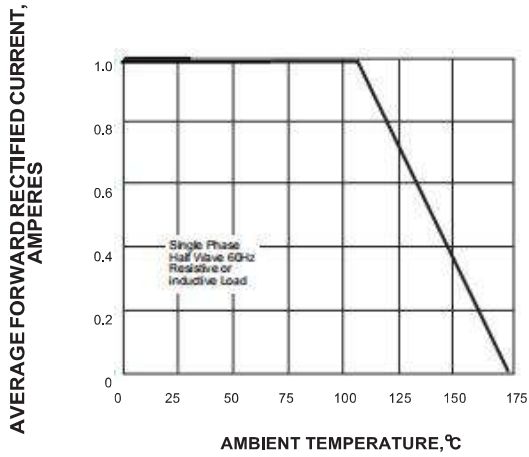


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

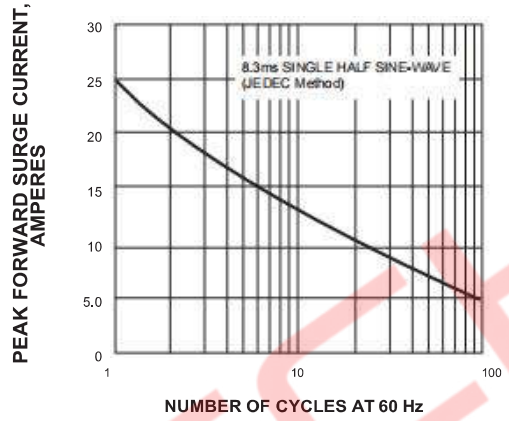


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

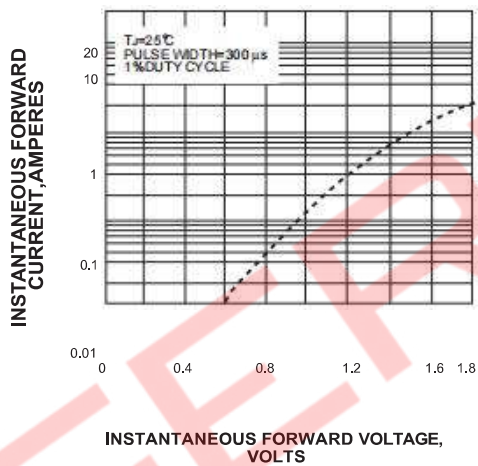


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

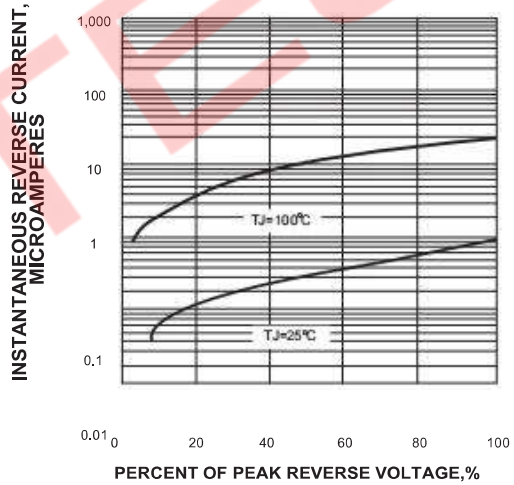


FIG. 5-TYPICAL JUNCTION CAPACITANCE

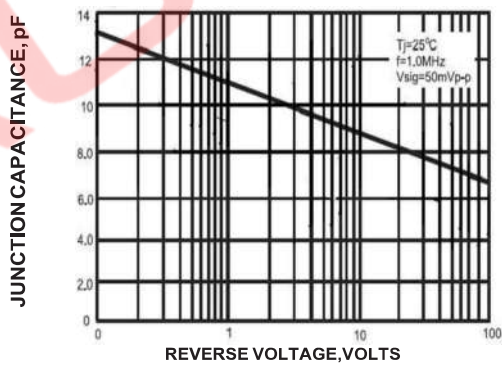
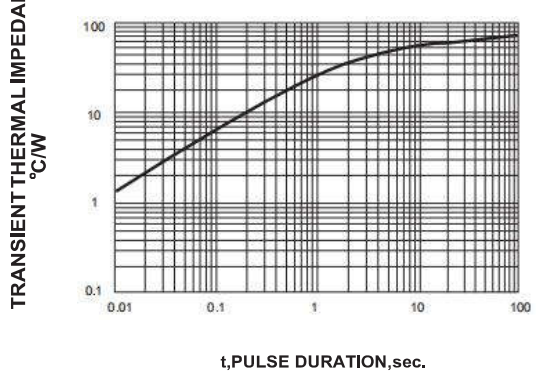


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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