

SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 50 - 600 V

CURRENT: 1.0 A

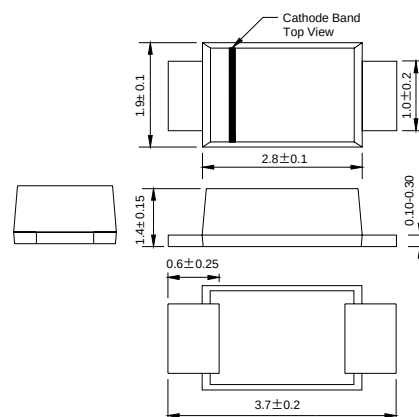
FEATURES

- ◇ Glass passivated device
- ◇ Ideal for surface mounted applications
- ◇ Low leakage current
- ◇ Metallurgically bonded construction
- ◇ High temperature soldering:
250°C/10 seconds at terminals

MECHANICAL DATA

- ◇ Case: JEDEC SOD-123FL, molded plastic over passivated chip
- ◇ Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.003 ounces, 0.01 gram
- ◇ Mounting position: Any

SOD - 123FL



Dimensions in millimeters

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, derate current by 20%.

ABSOLUTE RATINGS

		ER 07A	ER 07B	ER 07C	ER 07D	ER 07E	ER 07G	ER 07H	ER 07J	UNITS
Device marking		E1	E2	E3	E4	E5	E6	E7	E8	
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current $T_A=65^{\circ}\text{C}$	$I_{(AV)}$	1.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_L=25^{\circ}\text{C}$	I_{FSM}	20								A
Maximum instantaneous (NOTE 1) forward voltage at 1.0A	V_F	0.95				1.25		1.7		V
Maximum DC reverse current @ $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage @ $T_A=125^{\circ}\text{C}$	I_R	5.0 150								μA
Maximum reverse recovery time (NOTE 2)	t_{rr}	35								ns
Operating temperature range	T_J	- 55 --- + 150								$^{\circ}\text{C}$
Storage temperature range	T_{STG}	- 55 --- + 150								$^{\circ}\text{C}$

NOTES: 1. Pulse test: 300ms pulse width, 1% duty cycle.

2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

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FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

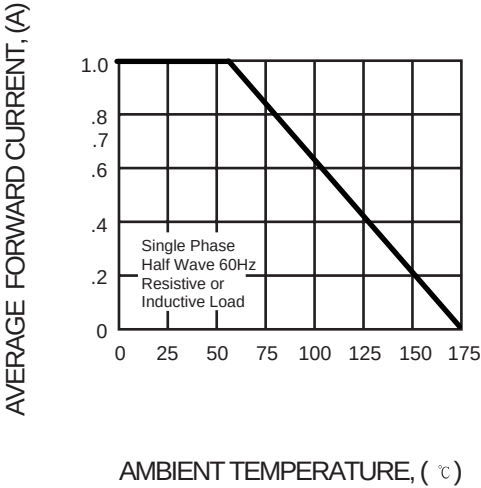


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

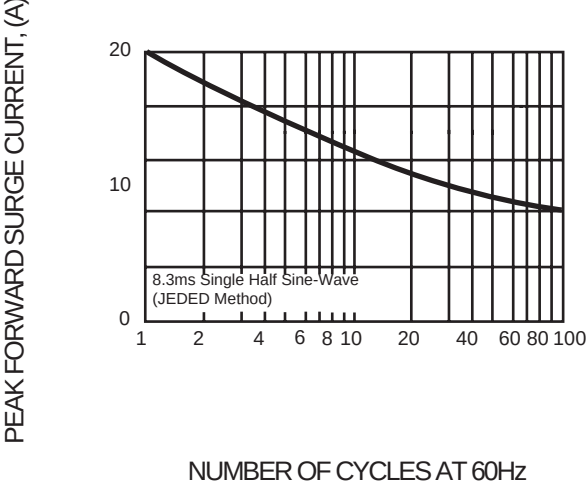


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

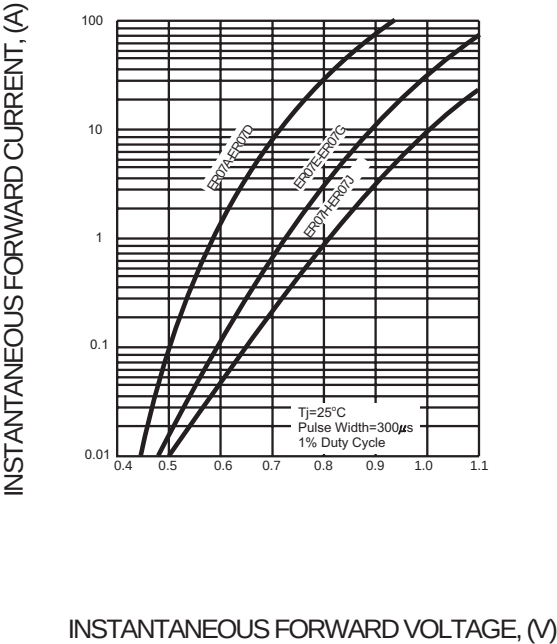


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

