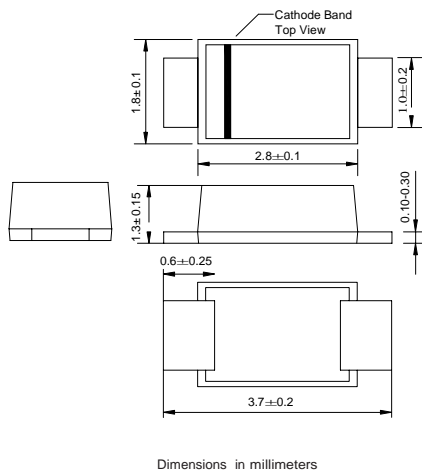


SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0Ampere

SOD-123FL



FEATURES

- ◆ 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

MECHANICAL DATA

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

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%.

GM Catalog Number	SYMBOLS	F1A F1	F1B F2	F1D F3	F1G F4	F1J F5	F1K F6	F1M F7	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_A=65$ C (NOTE 1)	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25$ C	I_{FSM}	25.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							Volts
Maximum DC reverse current $T_A=25$ C at rated DC blocking voltage $T_A=125$ C	I_R	5.0 50.0							μ A
Maximum reverse recovery time (NOTE 2)	t_{rr}	150			250		500		ns
Typical junction capacitance (NOTE 3)	C_J	15							pF
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							C

Note: 1. Averaged over any 20ms period.
 2. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
 3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES F1A THRU F1M

Fig.1 Forward Current Derating Curve

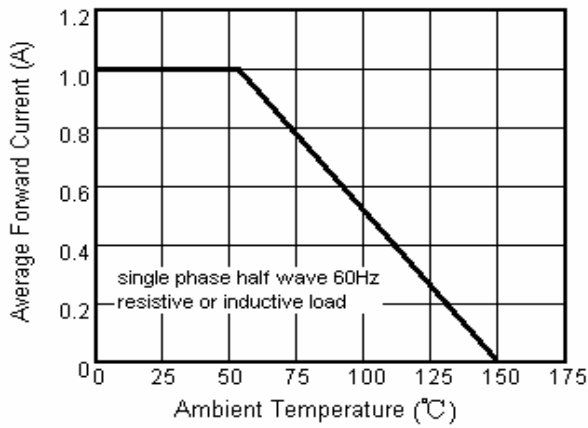


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

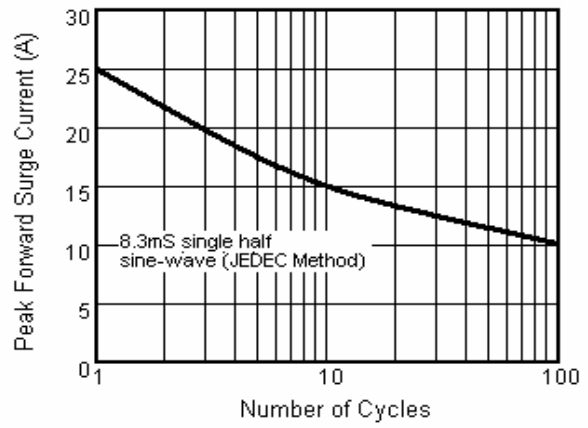


Fig.3 Typical Instantaneous Forward Characteristics

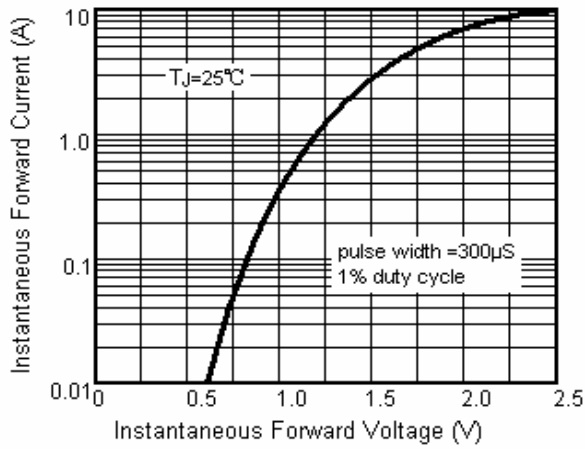


Fig.4 Typical Reverse Characteristics

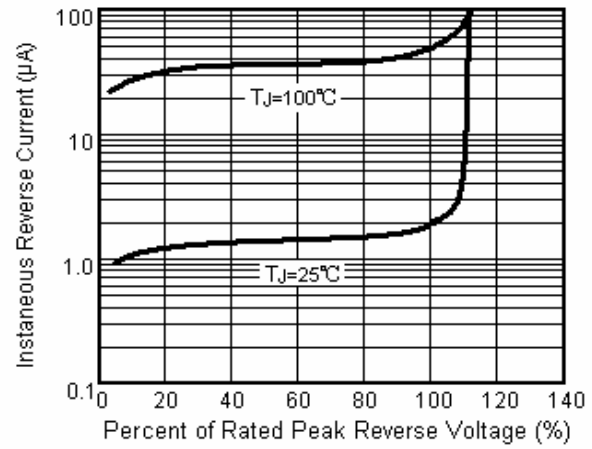


Fig.5 Typical Junction Capacitance

