

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- Low Forward Voltage

MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

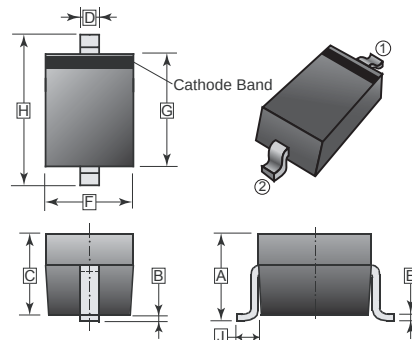
MARKING CODE

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PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch

SOD-123



REF.	Min.	Max.	REF.	Min.	Max.
A	0.95	1.35	F	1.40	1.80
B	0.10	REF.	G	2.55	2.85
C	1.05	1.15	H	3.55	3.85
D	0.30	0.78	J	0.50	REF.
E	0.08	0.25			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage	V_{RWM}	20	V
Maximum DC Blocking Voltage	V_R	20	V
Average Forward Current @ $T_J=25^\circ\text{C}$	$I_{F(AV)}$	0.5	A
Peak Forward Current @ 8.3 ms Half Sine	I_{FSM}	10	A
Maximum Instantaneous Forward Voltage @ $I_{FM} = 0.5\text{A}$, $T_J = 25^\circ\text{C}$	V_{F1}	0.385	V
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J = 25^\circ\text{C}$	I_{R1}	0.2	mA
Typical Junction Capacitance ¹	C_J	30	pF
Typical Thermal Resistance ²	$R_{\theta JA}$	310	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-50~125	$^\circ\text{C}$
Storage temperature	T_{STG}	-65~150	$^\circ\text{C}$

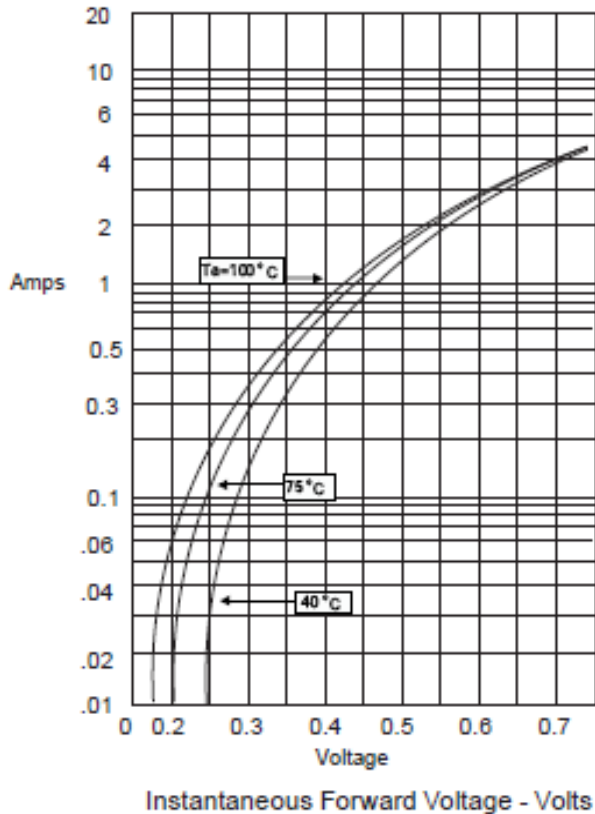
Notes:

1. Measured at 1MHz and applied reverse of 5V DC.

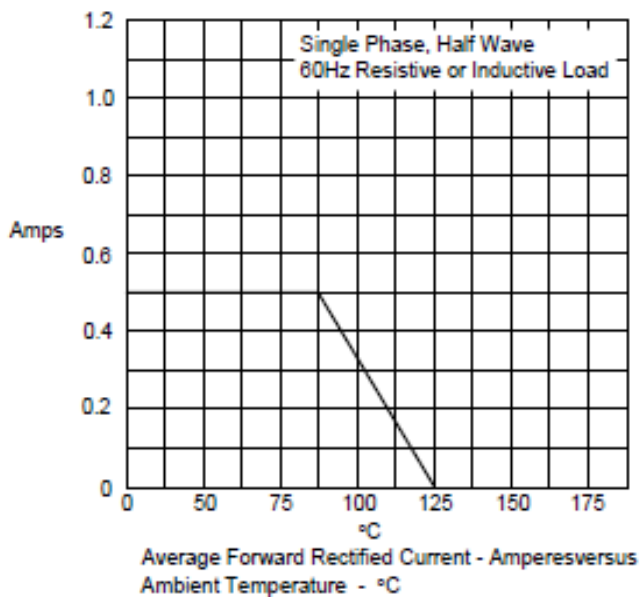
2. FR-4 PCB, 2 oz. 0.7mm x 1.2mm copper pad.

RATINGS AND CHARACTERISTIC CURVES

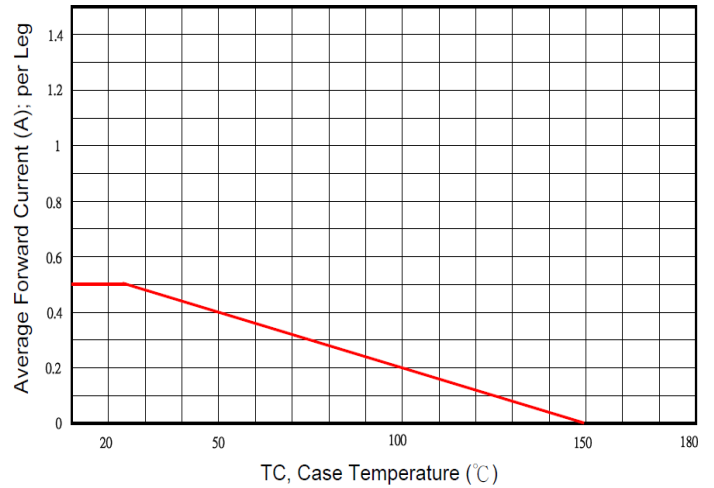
TYPICAL FORWARD CHARACTERISTICS



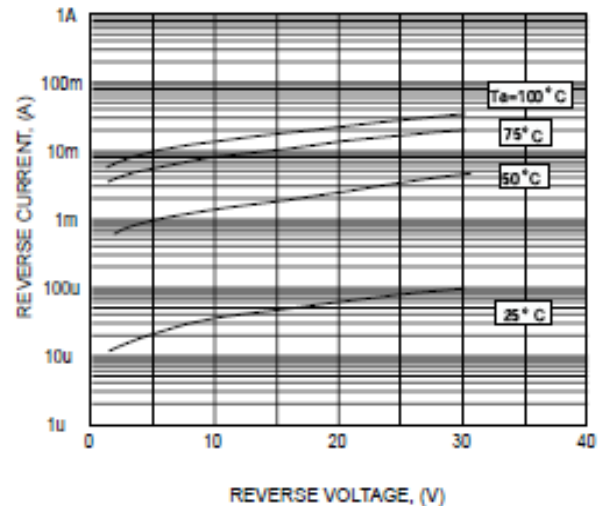
FORWARD DERATING CURVE



Typical Forward Current Derating Curve



REVERSE CHARACTERISTICS



PEAK FORWARD SURGE CURRENT

