

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

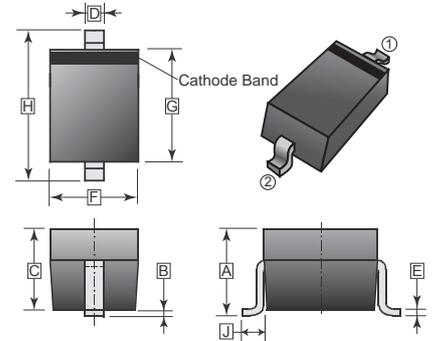
FEATURES

- 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

SOD-123



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		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			

MARKING CODE

BR

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

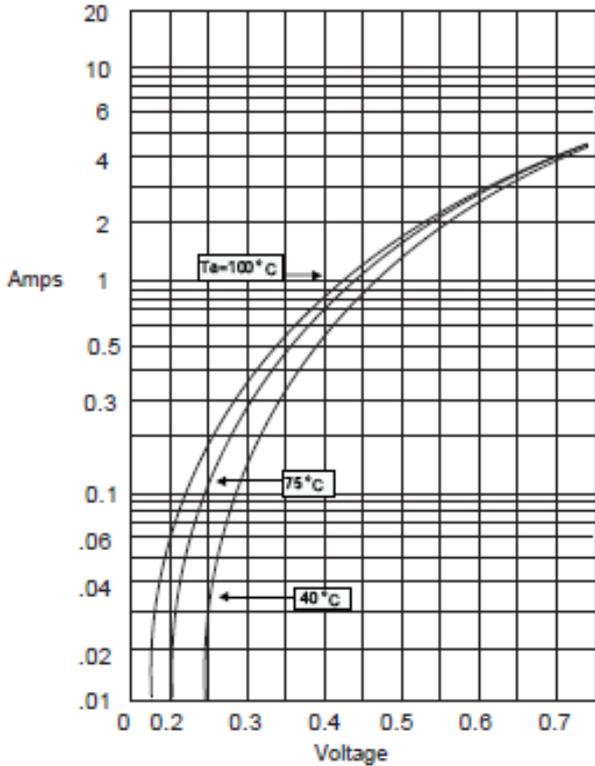
(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
 For capacitive load, de-rate current by 20%)

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 @ $I_{FM} = 0.5A, T_J = 25^\circ\text{C}$	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	°C/W
Operating Temperature Range	T_J	-50~125	°C
Storage temperature	T_{STG}	-65~150	°C

Notes:
 1. Measured at 1MHZ and applied reverse of 5V DC.
 2. FR-4 PCB, 2 oz. 0.7mm x1.2mm copper pad.

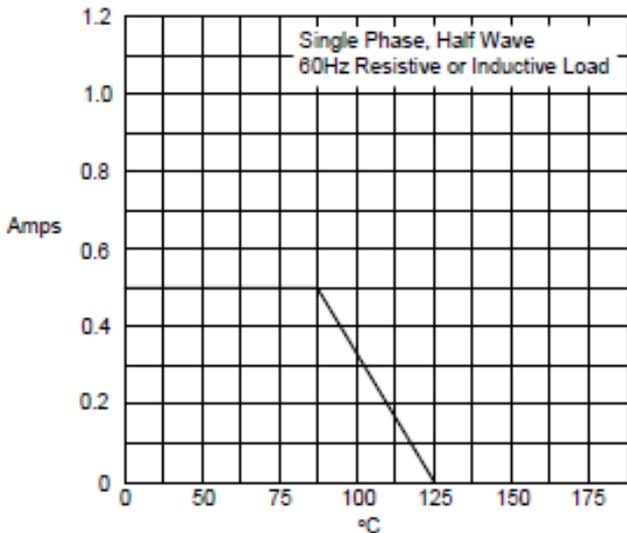
RATINGS AND CHARACTERISTIC CURVES

TYPICAL FORWARD CHARACTERISTICS



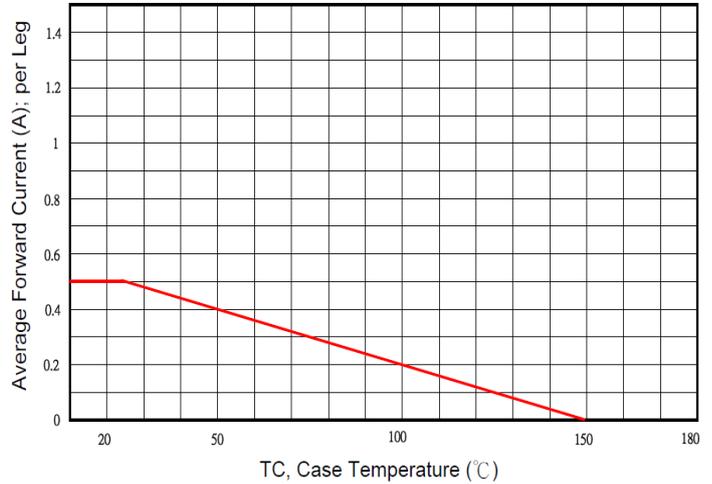
Instantaneous Forward Voltage - Volts

FORWARD DERATING CURVE

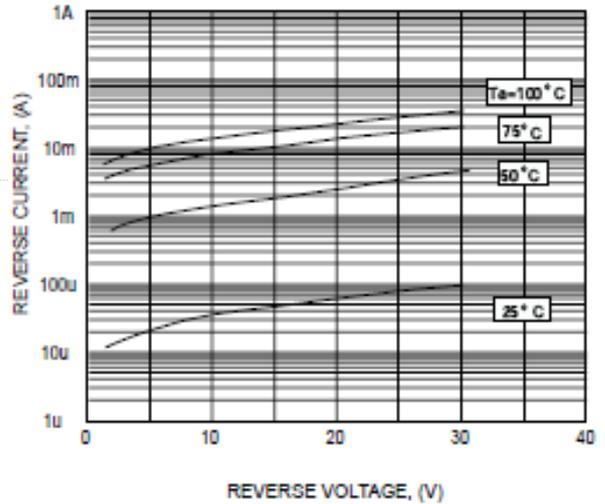


Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

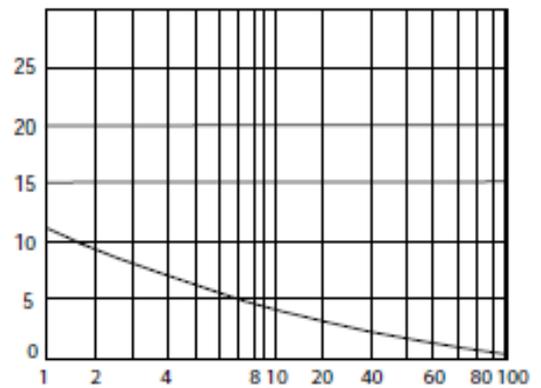
Typical Forward Current Derating Curve



REVERSE CHARACTERISTICS



PEAK FORWARD SURGE CURRENT



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles