

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

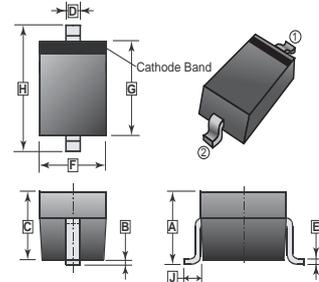
## FEATURES

- 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	-	-
E	0.08	0.25			

## MARKING CODE

BM

## 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%.)

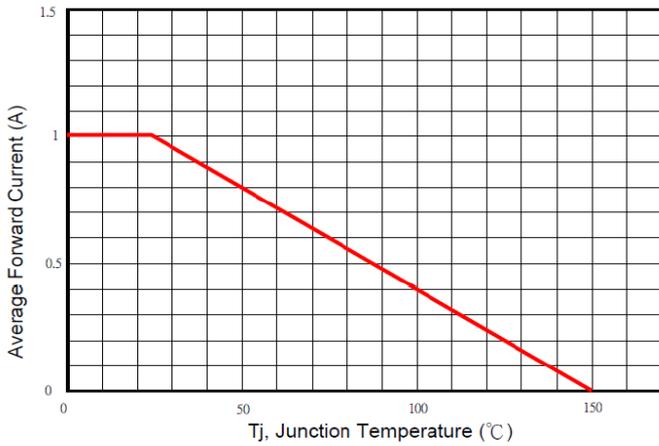
Parameter	Symbol	Ratings	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	V	
Working Peak Reverse Voltage	$V_{RWM}$	40	V	
Maximum DC Blocking Voltage	$V_R$	40	V	
Average Forward Current @ $T_J=25^\circ\text{C}$	$I_{F(AV)}$	1	A	
Peak Forward Current @ 8.3 ms Half Sine	$I_{FSM}$	10	A	
Maximum Instantaneous Forward Voltage	$V_F$	$I_{FM} = 1\text{ A}, T_A = 25^\circ\text{C}$	0.52	V
		$I_{FM} = 1\text{ A}, T_A = 125^\circ\text{C}$	0.45	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	$T_J = 25^\circ\text{C}$	0.1	mA
		$T_J = 125^\circ\text{C}$	5	mA
Typical Junction Capacitance <sup>1</sup>	$C_J$	160	pF	
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JA}$	310	°C/W	
Operating Temperature Range	$T_J$	-40~125	°C	
Storage temperature	$T_{STG}$	-50~150	°C	

Notes:

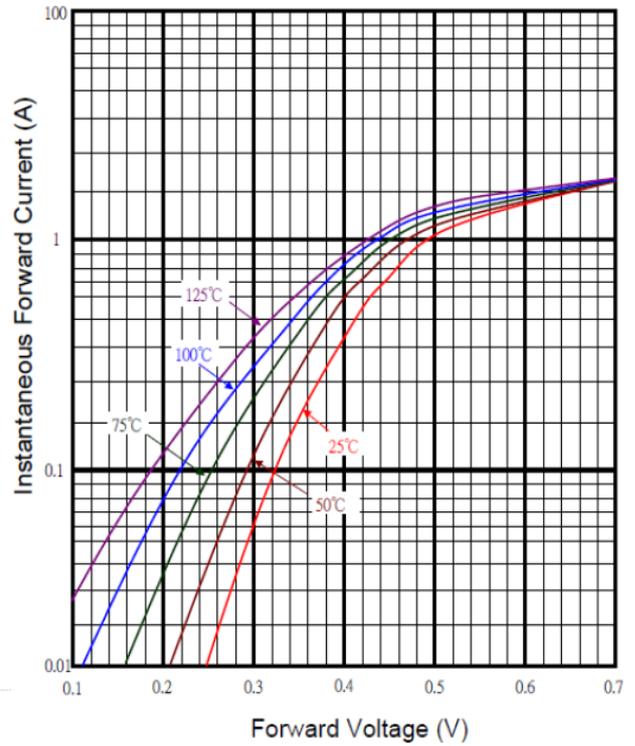
1. Measured at 1MHz and applied reverse of 0V DC.
2. FR-4 PCB, 2 oz. 0.7mm x 1.2mm copper pad.

**RATINGS AND CHARACTERISTIC CURVES**

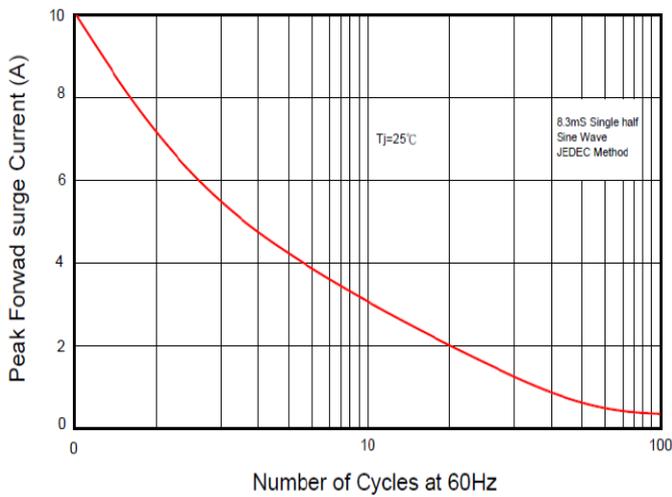
Typical Forward Current Derating Curve



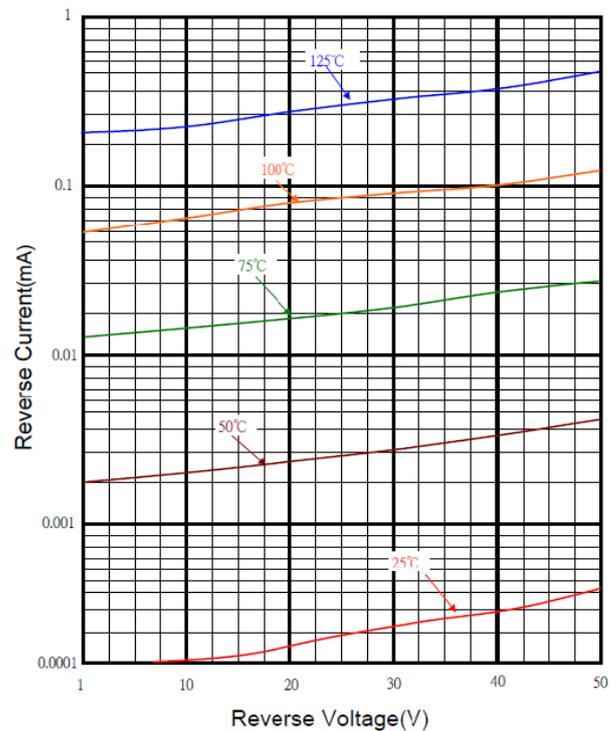
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

