

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

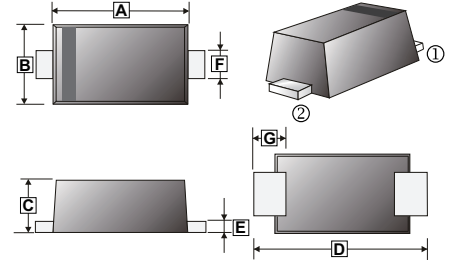
FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current

MECHANICAL DATA

- Case: JEDEC SOD-123JD, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

SOD-123JD



MARKING

Part Number	Marking Code	Part Number	Marking Code
SM4001JD	A1	SM4005JD	A5
SM4002JD	A2	SM4006JD	A6
SM4003JD	A3	SM4007JD	A7
SM4004JD	A4		

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.6	2.9	E	0.1	0.2
B	1.7	1.9	F	0.8	1.1
C	0.9	1.1	G	0.7	0.9
D	3.5	3.8			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123JD	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	Part Number							Unit
		SM 4001JD	SM 4002JD	SM 4003JD	SM 4004JD	SM 4005JD	SM 4006JD	SM 4007JD	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I_F	1							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage $I_F=1A @ 25^\circ C$	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ C$	5							μA
	$T_A=125^\circ C$	50							
Typical Junction Capacitance ¹	C_J	9							pF
Typical Thermal Resistance ²	$R_{\theta JL}$	20							°C/W
Typical Thermal Resistance ²	$R_{\theta JC}$	40							°C/W
Operating & Storage Temperature	T_J, T_{STG}	-55~ 150							°C

Notes :

1. Measured at $f=1.0MHz$, $V_R=4.0V$
2. FR4 Board Heat sink size: 10*10*0.2mm.

CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

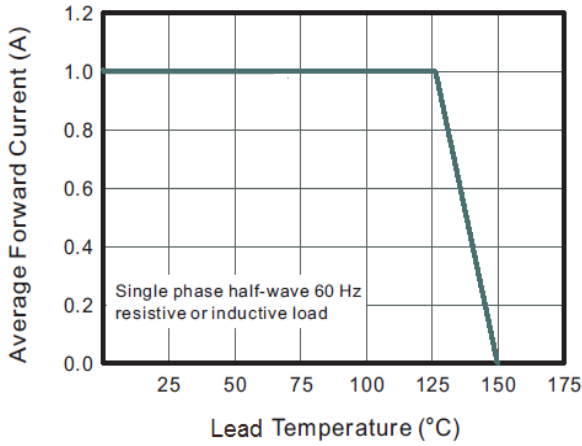


Fig.2 Typical Instantaneous Reverse Characteristics

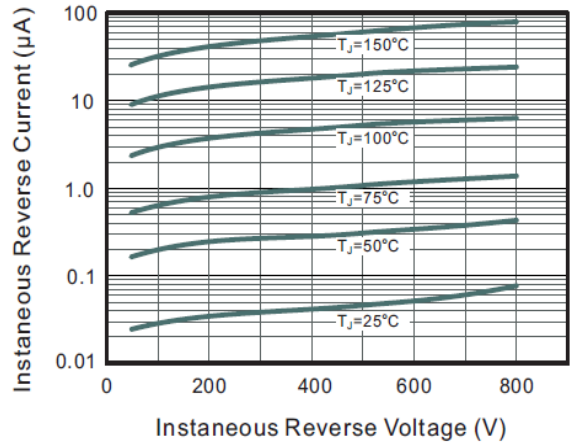


Fig.3 Typical Forward Characteristic

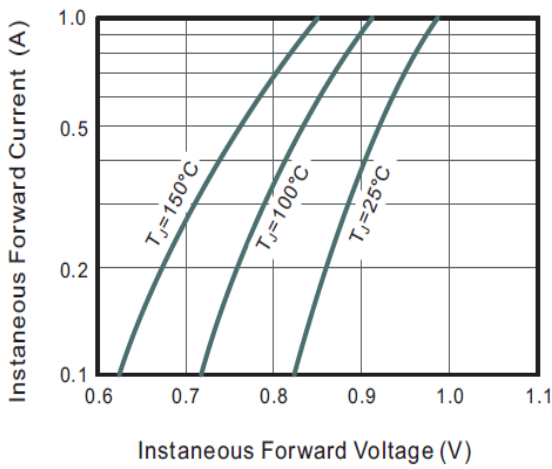


Fig.4 Typical Junction Capacitance

