

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

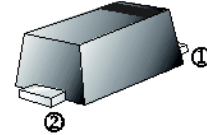
FEATURES

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

MECHANICAL DATA

- Case: SOD-123JD
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

SOD-123JD

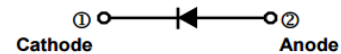


PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123JD	3K	7 inch

ORDER INFORMATION

Part Number	Type
SM220JD-C~SM2200JD-C	Lead (Pb)-free and Halogen-free



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
		SM220 JD-C	SM240 JD-C	SM260 JD-C	SM2100 JD-C	SM2150 JD-C	SM2200 JD-C	
Marking		S24	S24	S26	S210	S215	S220	
Maximum Recurrent Reverse Voltage	V_{RRM}	20	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	42	70	105	140	
Maximum DC Blocking Voltage	V_{DC}	20	40	60	100	150	200	
Maximum Instantaneous Forward Voltage @ $I_F=2A$	V_F	0.55		0.7	0.85	0.95		V
Maximum Average Forward Rectified Current	$I_{(AV)}$	2						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40						A
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ C$	0.5			0.3			mA
	$T_A=100^\circ C$	10			5			
Typical Junction Capacitance ¹	C_J	220			80			pF
Typical Thermal Resistance ²	$R_{\theta JC}$	40						°C/W
	$R_{\theta JL}$	20						
Operating Junction & Storage Temperature	T_J, T_{STG}	150, -55~150						°C

Notes:

1. Measured at $f=1MHz, V_R=4V$.
2. FR-4 Board Heat sink size: 10*10*0.2mm.

CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

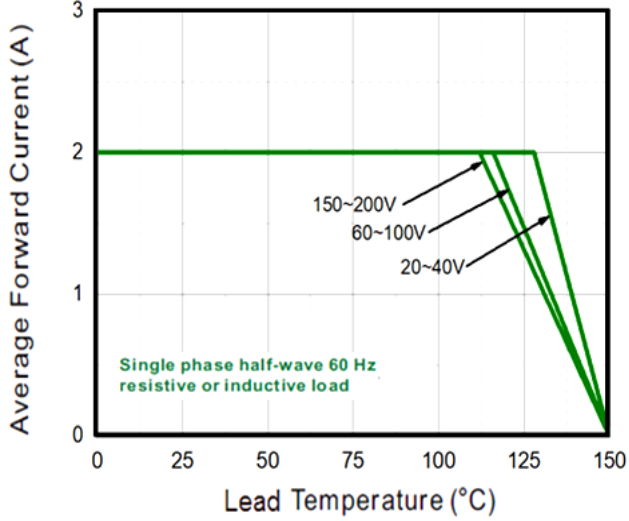


Fig.2 Typical Reverse Characteristics

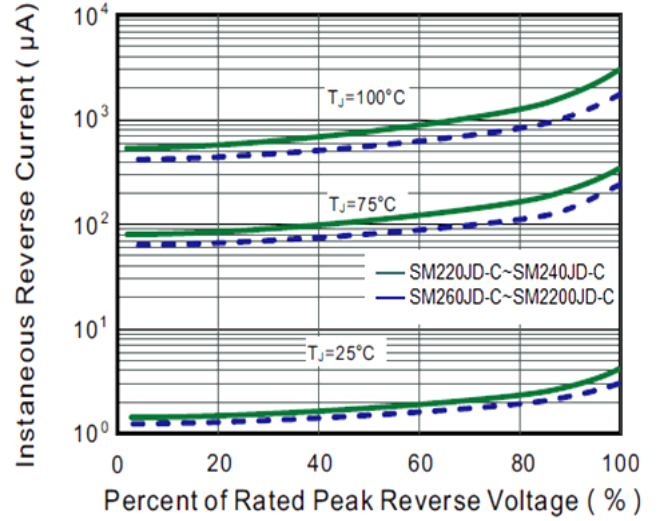


Fig.3 Typical Forward Characteristic

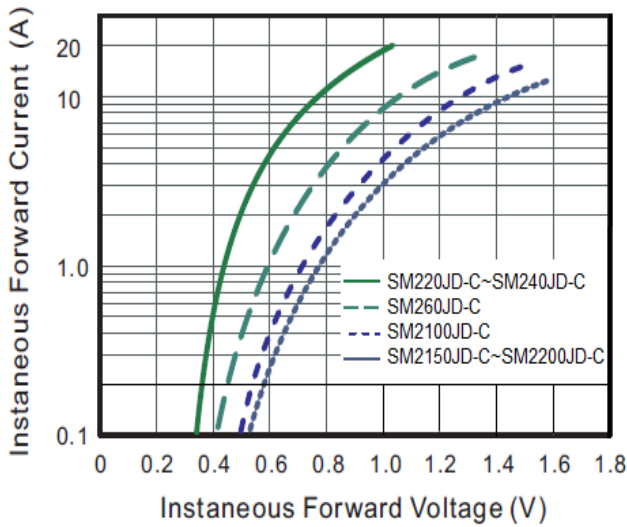


Fig.4 Typical Junction Capacitance

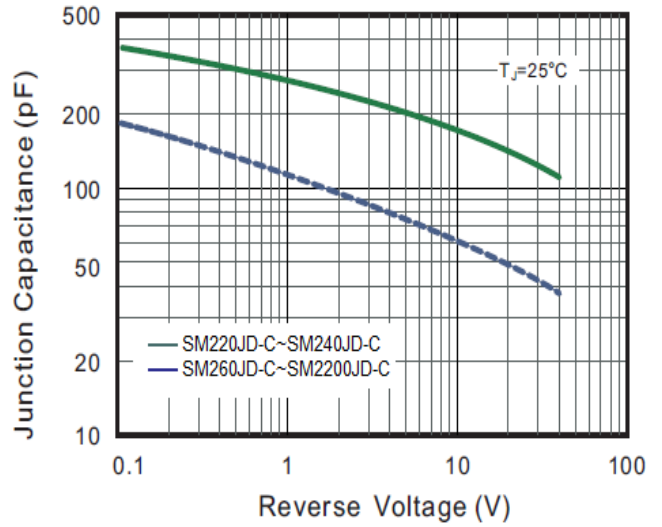
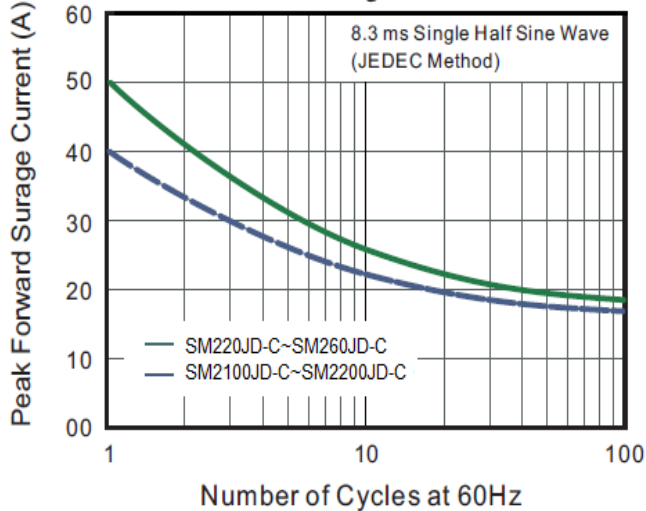
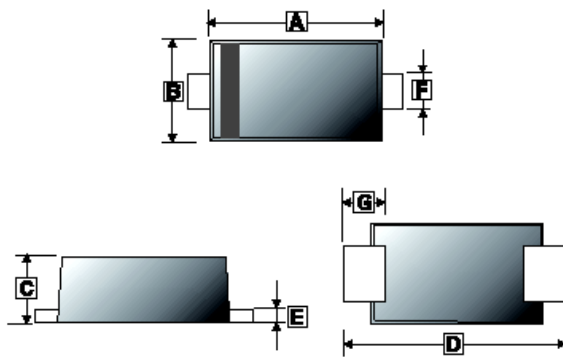


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE DIMENSIONS

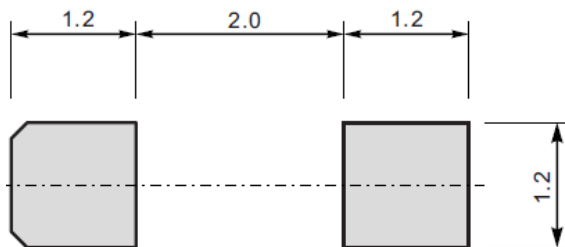
SOD-123JD



REF.	Millimeter	
	Min.	Max.
A	2.60	2.90
B	1.70	1.90
C	0.90	1.10
D	3.50	3.80
E	0.10	0.20
F	0.80	1.10
G	0.70	0.90

MOUNTING PAD LAYOUT

SOD-123JD



*Dimensions in millimeters