

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

### FEATURES

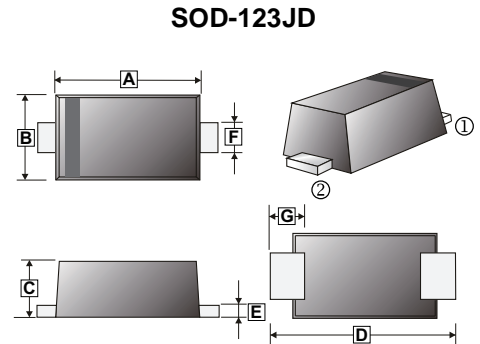
- Low Profile Package
- Glass Passivated Chip Junction
- Ideal for Automated Placement
- Fast Reverse Recovery Time
- Lead Free in Comply with EU RoHS 2011/65/EU Directives

### MECHANICAL DATA

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

### MARKING

Product	Marking Code	Product	Marking Code
SMF201JD-C	2F2	SMF205JD-C	2F5
SMF202JD-C		SMF206JD-C	2F7
SMF203JD-C		SMF207JD-C	
SMF204JD-C			



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

### PACKAGE INFORMATION

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

### ORDER INFORMATION

Part Number	Type
SMF201JD-C~SMF207JD-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%.)

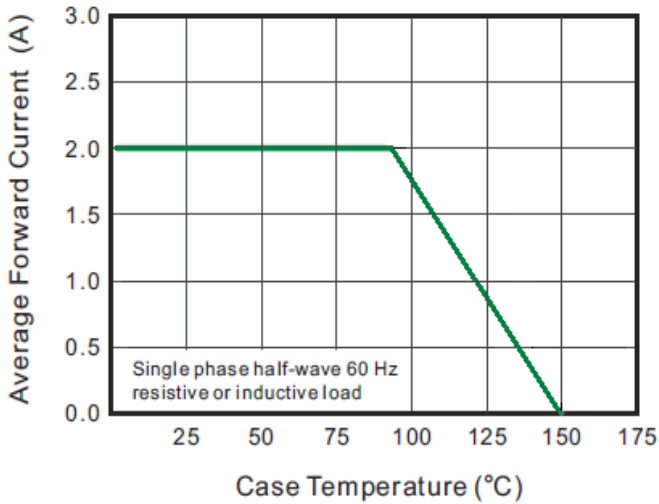
Parameters	Symbol	Part Number							Unit
		SMF201 JD-C	SMF202 JD-C	SMF203 JD-C	SMF204 JD-C	SMF205 JD-C	SMF206 JD-C	SMF207 JD-C	
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	
DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	
Average Forward Rectified Current	$I_F$	2							A
Peak Forward Surge Current @8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50							A
Maximum Forward Voltage @ $I_F=2A$	$V_F$	1.3							V
Maximum DC reverse current @Rated DC Blocking Voltage	$T_A=25^\circ C$	5							$\mu A$
	$T_A=100^\circ C$	100							
Typical Junction Capacitance <sup>1</sup>	$C_J$	30							pF
Maximum Reverse Recovery Time <sup>2</sup>	$t_{rr}$	150			250	500		nS	
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JA}$	75							$^\circ C/W$
	$R_{\theta JC}$	22							
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~150							$^\circ C$

Notes:

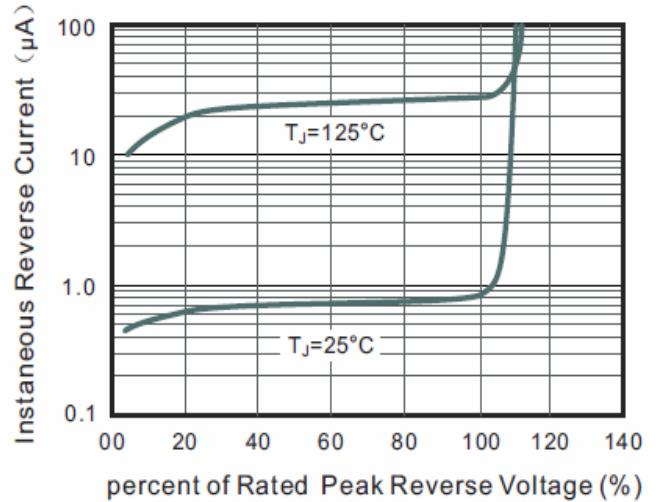
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $t_{rr}=0.25A$ .
3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

**RATINGS AND CHARACTERISTIC CURVES**

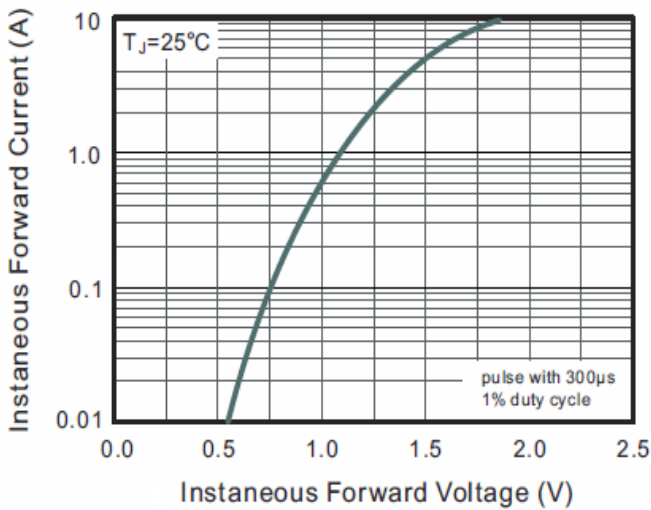
**Fig.1 Forward Current Derating Curve**



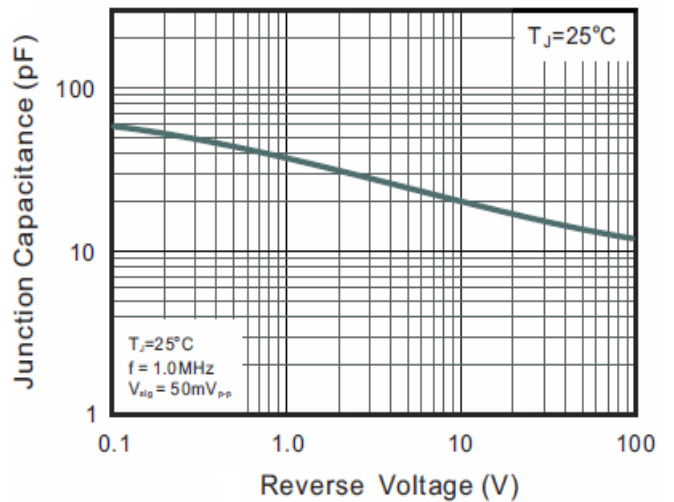
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

