

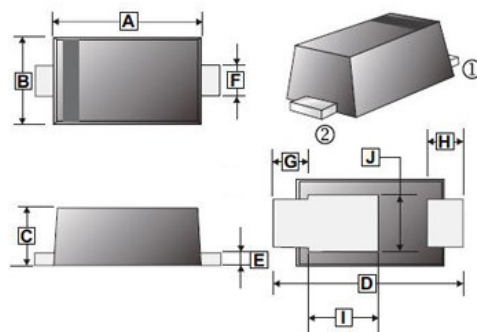
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Glass Passivated Fast Recovery Rectifiers
- Low Profile, Typical Thickness 0.8mm
- Low Forward Voltage Drop
- Low Leakage Current
- Moisture Sensitivity: level 1, per J-STD-020
- Heatsink Structure
- Solder Dip 260°C, 10s

SOD-123DT



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.90	3.10	F	0.85	1.05
B	1.90	2.10	G	0.60 REF.	
C	0.75	0.90	H	0.40	0.85
D	3.50	3.90	I	1.66 REF.	
E	0.10	0.25	J	1.30	1.70

MARKING

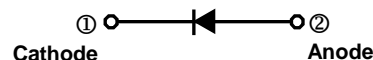
Part Number	Marking Code	Part Number	Marking Code
SMF101DT-C	PF4	SMF105DT-C	PF5
SMF102DT-C		SMF106DT-C	PF7
SMF103DT-C		SMF107DT-C	
SMF104DT-C			

PACKAGE INFORMATION

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

ORDER INFORMATION

Part Number	Type
SMF101DT-C~SMF107DT-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Part Number							Unit
		SMF101 DT-C	SMF102 DT-C	SMF103 DT-C	SMF104 DT-C	SMF105 DT-C	SMF106 DT-C	SMF107 DT-C	
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	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
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	T _A =25°C	1.3							V
	T _A =125°C	0.98							
Maximum DC Reverse Current @Rated DC Blocking Voltage	T _A =25°C	5							µA
	T _A =125°C	50							
Typical Junction Capacitance ¹	C _J	7.5							pF
Maximum Reverse Recovery Time ²	t _{rr}	150				250			nS
Rating for Fusing (t<8.3ms)	I ² t	3.8							A ² S
Thermal Resistance from Junction-Ambient ³	R _{θJA}	63							°C/W
Thermal Resistance from Junction-Case ⁴	R _{θJC}	39							
Thermal Resistance from Junction-Lead ³	R _{θJL}	9							
Operating & Storage Temperature	T _J , T _{STG}	-55~150							°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, I_{RR}=0.25A.
3. The thermal resistance from junction to ambient or lead, mounted on P.C.B with 5x5mm copper pads, 2OZ, FR4 PCB.
4. The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads, 2OZ, FR4 PCB.

RATINGS AND CHARACTERISTIC CURVES

Figure 1. Forward Current Derating Curve

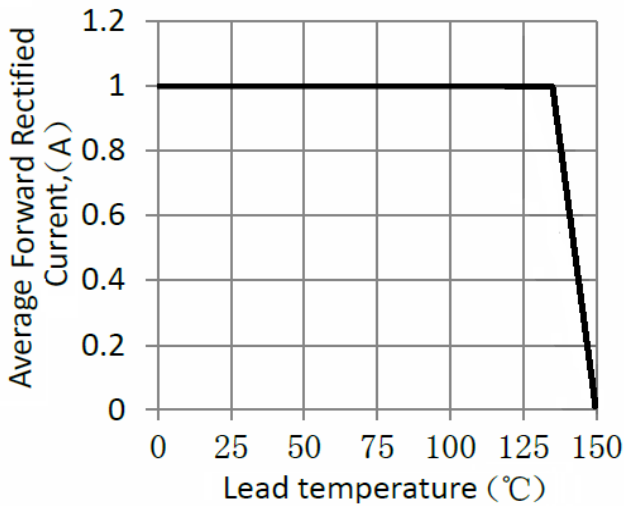


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

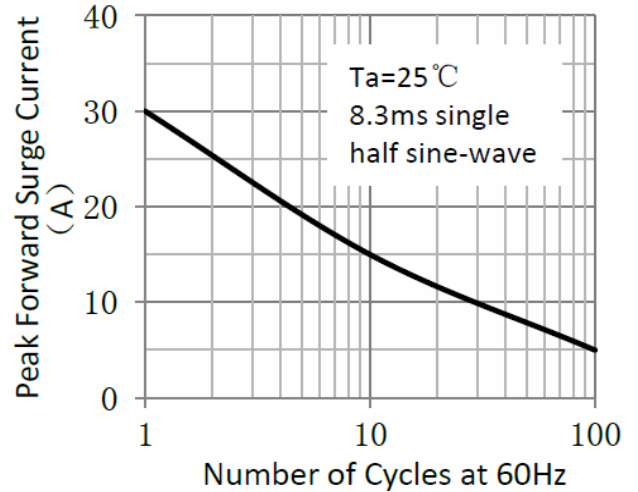


Figure 3. Typical Reverse Characteristics

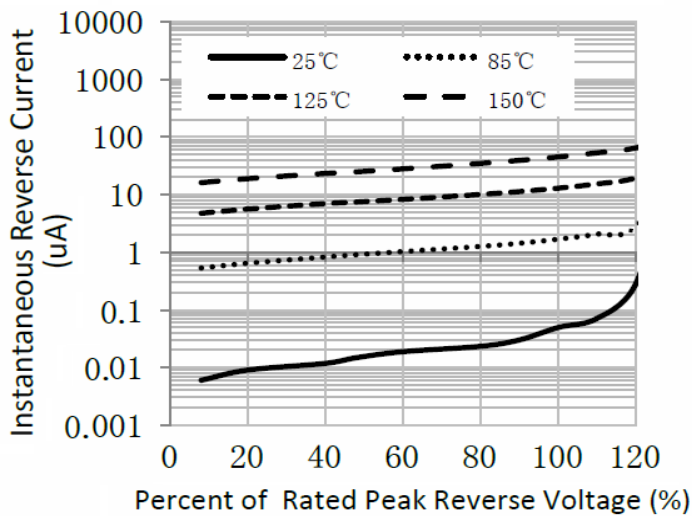


Figure 4. Typical Instantaneous Forward Characteristics

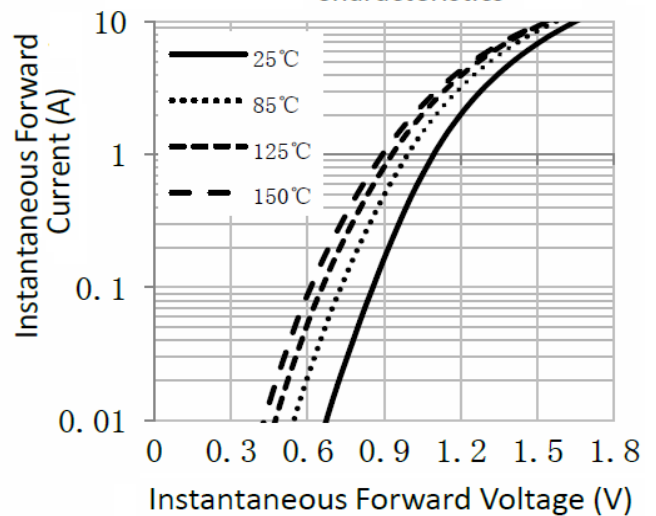


Figure 5. Typical Junction Capacitance

