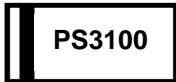


RoHS Compliant Product
A suffix of "-C" specifies halogen-free

FEATURES

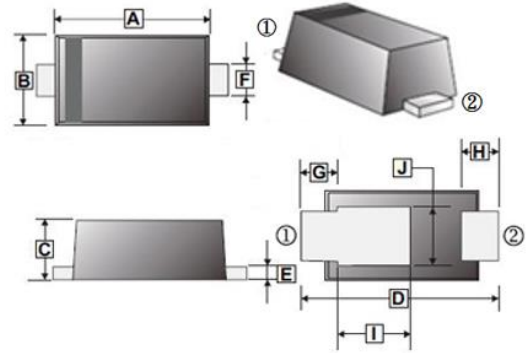
- Heatsink Structure
- Low Profile, Typical Thickness 0.8mm
- Super Low V_F Schottky Barrier Diodes
- Moisture Sensitivity: Level 1, per J-STD-020
- High Temperature Soldering Guaranteed: 260°C/10s

MARKING



↑
Cathode

SOD-123DT



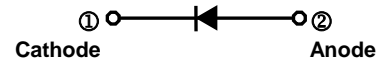
PACKAGE INFORMATION

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

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

ORDER INFORMATION

Part Number	Type
SM3100DT-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V	
Maximum RMS Voltage	V_{RMS}	70		
Maximum DC Blocking Voltage	V_{DC}	100		
Maximum Average Forward Rectified Current	I_F	3	A	
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rate Load	I_{FSM}	100	A	
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	42	A^2S	
Maximum Instantaneous Forward Voltage @ $I_F=3\text{A}$	V_F	$T_A=25^\circ\text{C}$	0.8	V
		$T_A=125^\circ\text{C}$	0.65	
Maximum DC Reverse Current @ Rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$	5	μA
		$T_A=125^\circ\text{C}$	1000	
Typical Junction Capacitance ³	C_J	112	pF	
Typical Thermal Resistance from Junction-Ambient ¹	$R_{\theta JA}$	61	$^\circ\text{C}/\text{W}$	
Typical Thermal Resistance from Junction-Case ²	$R_{\theta JC}$	31		
Typical Thermal Resistance from Junction-Lead ¹	$R_{\theta JL}$	7		
Operating Junction & Storage Temperature	T_J, T_{STG}	-55~150	$^\circ\text{C}$	

Notes:

1. The thermal resistance from junction-ambient or lead, mounted on P.C.B with 5x5mm copper pads, 2oz, FR-4 PCB.
2. The thermal resistance from junction-case, mounted on P.C.B with recommended copper pads, 2oz, FR-4 PCB.
3. Measured at 1MHz and applied reverse voltage of 4V D.C.

CHARACTERISTIC CURVES

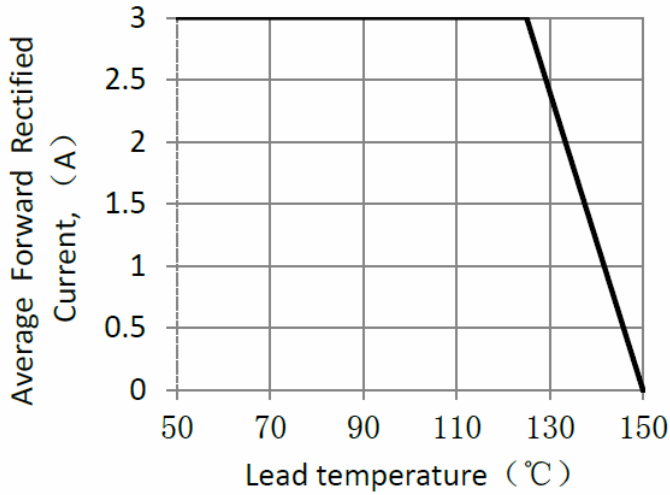


Figure 1. Forward Current Derating Curve

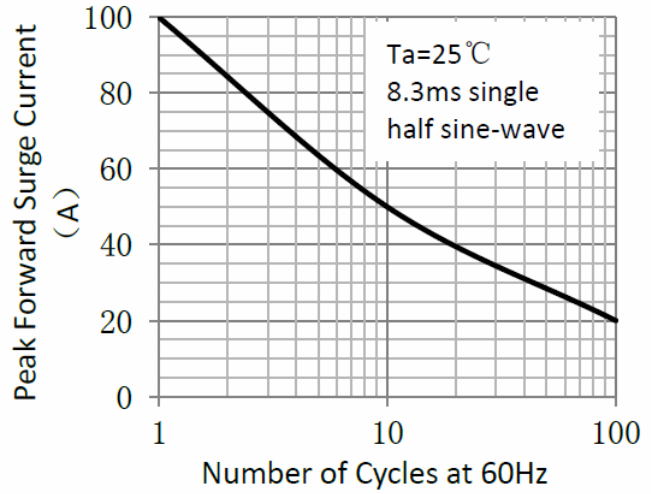


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

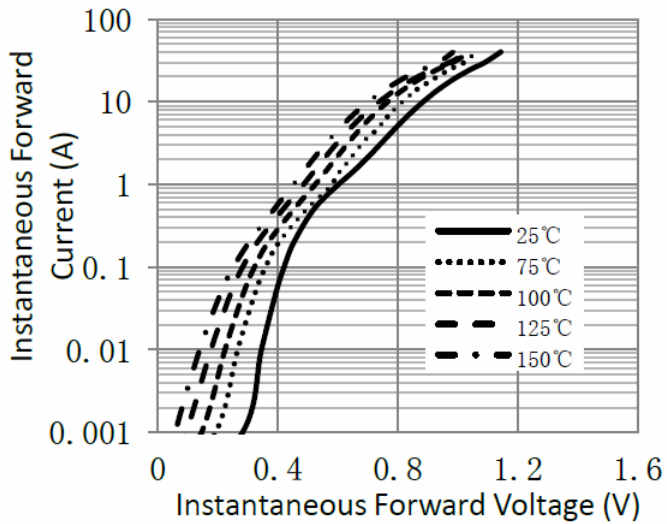


Figure 3. Typical Instantaneous Forward Characteristics

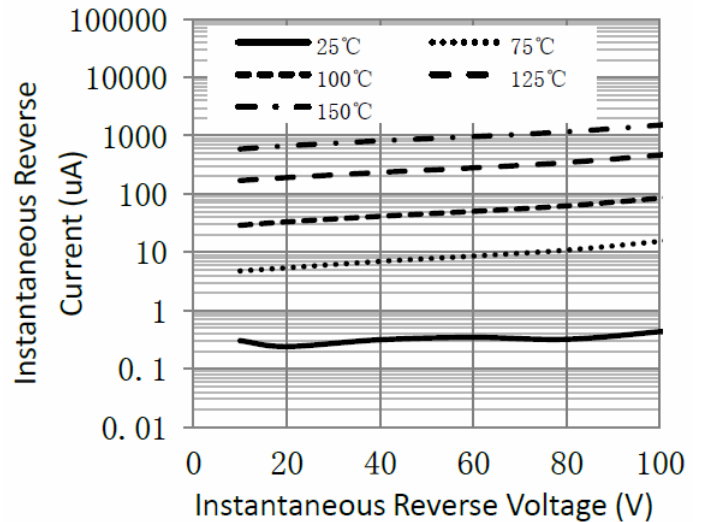


Figure 4. Typical Reverse Characteristics

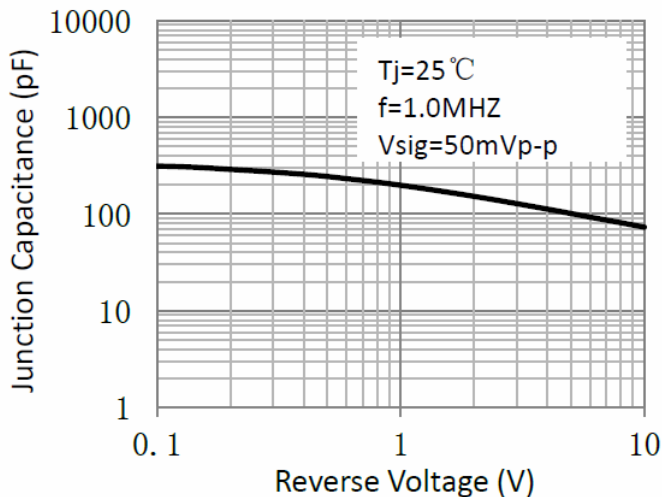
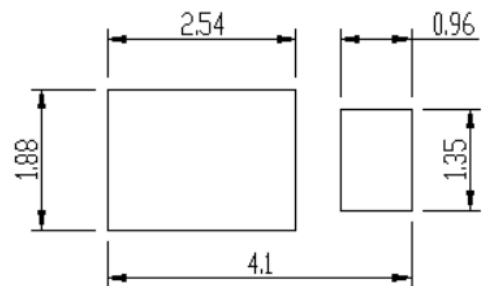


Figure 5. Typical Junction Capacitance



*Dimensions in millimeters

Figure 6. Mounting Pad Layout