

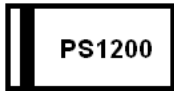
RoHS Compliant Product

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

FEATURES

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds

MARKING

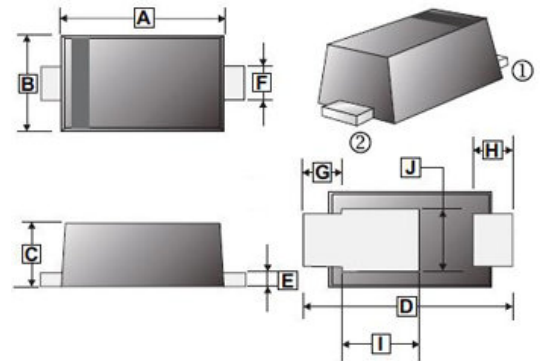


↑
Cathode

PACKAGE INFORMATION

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

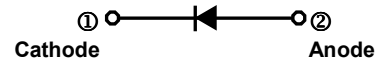
SOD-123DT



ORDER INFORMATION

Part Number	Type
SM1200DT	Lead (Pb)-free
SM1200DT-C	Lead (Pb)-free and Halogen-free

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.9	3.1	F	0.85	1.05
B	1.9	2.1	G	0.6 REF.	
C	0.75	0.9	H	0.4	0.85
D	3.5	3.9	I	1.66 REF.	
E	0.1	0.25	J	1.3	1.7



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

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS Voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Minimum Breakdown Voltage @ $I_R=1\text{mA}$	V_{BR}	200	V
Maximum Average Forward Rectified Current	I_F	1	A
Peak Forward Surge Current@ 8.3 ms single half sine-wave Superimposed on rate load	I_{FSM}	40	A
Maximum Instantaneous Forward Voltage	V_F	$I_F=0.5\text{A}$	0.8
		$I_F=1\text{A}$	0.85
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$	2
		$T_A=125^\circ\text{C}$	200
Typical Thermal Resistance from Junction to Ambient ¹	$R_{\theta JA}$	65	°C / W
Typical Thermal Resistance from Junction to Case ²	$R_{\theta JC}$	35	
Typical Thermal Resistance from Junction to Lead ¹	$R_{\theta JL}$	9	
Operating Junction and Storage Temperature	T_J, T_{STG}	-55~150	°C

Notes:

1. The thermal resistance from junction to ambient or lead, mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB.
2. The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads, 2 OZ, FR4 PCB.

CHARACTERISTIC CURVES

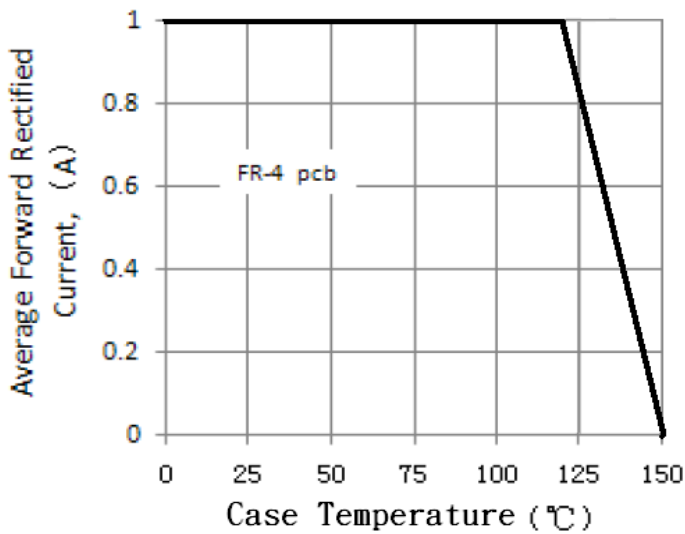


Figure 1. Forward Current Derating Curve

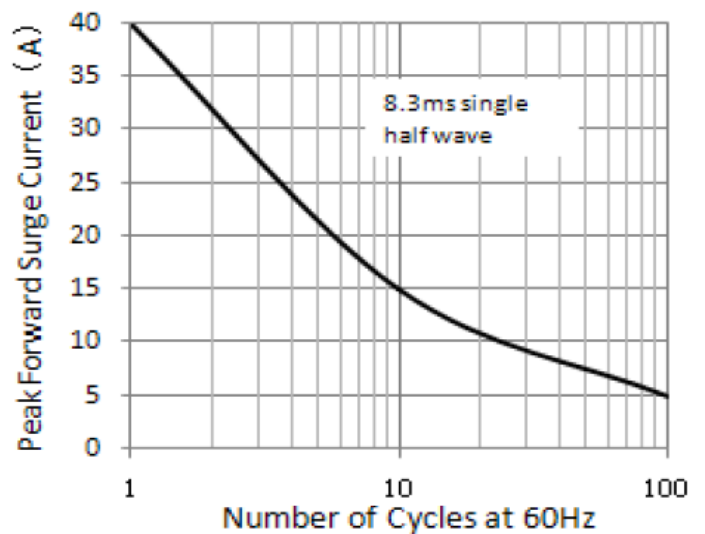


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

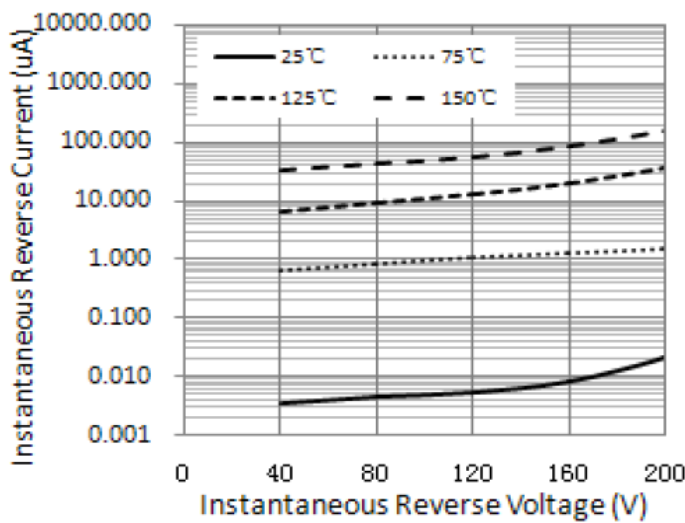


Figure 3. Typical Instantaneous Reverse Characteristics

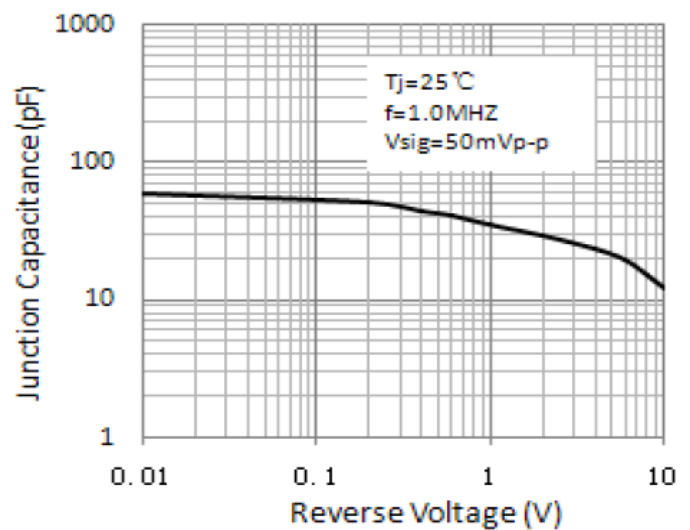


Figure 4. Typical Junction Capacitance

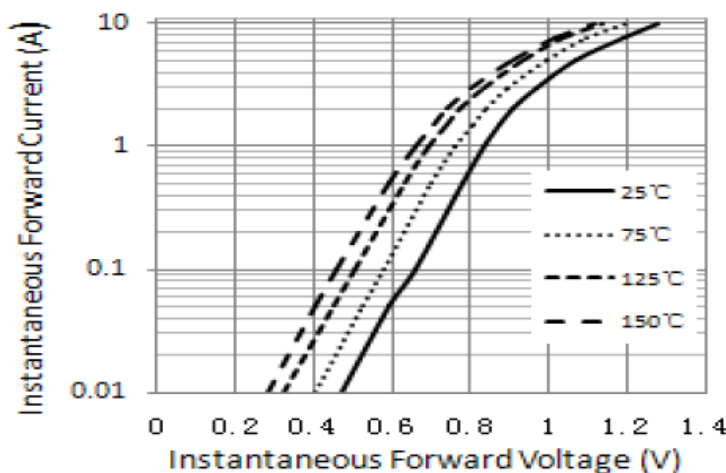


Figure 5. Typical Instantaneous Forward Characteristics