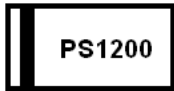


RoHS Compliant Product  
A suffix of "-C" specifies halogen-free and RoHS Compliant

**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

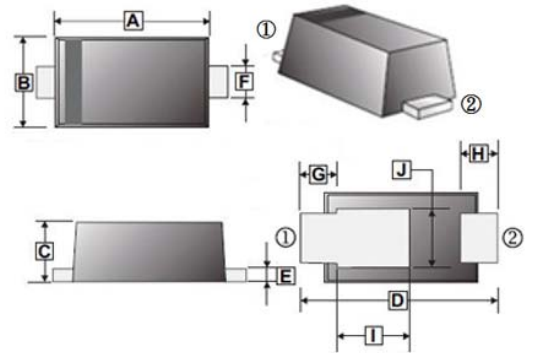
**PACKAGE INFORMATION**

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

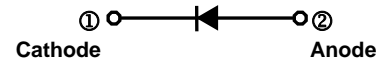
**ORDER INFORMATION**

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

**SOD-123DT**



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<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	V
Minimum Breakdown Voltage @I <sub>R</sub> =1mA	V <sub>BR</sub>	200	V
Maximum Average Forward Rectified Current	I <sub>F</sub>	1	A
Peak Forward Surge Current@ 8.3 ms single half sine-wave Superimposed on rate load	I <sub>FSM</sub>	40	A
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =0.5A	0.8
		I <sub>F</sub> =1A	0.85
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	2
		T <sub>A</sub> =125°C	200
Typical Thermal Resistance from Junction to Ambient <sup>1</sup>	R <sub>θJA</sub>	65	°C / W
Typical Thermal Resistance from Junction to Case <sup>2</sup>	R <sub>θJC</sub>	35	
Typical Thermal Resistance from Junction to Lead <sup>1</sup>	R <sub>θJL</sub>	9	
Operating Junction and Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	-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**

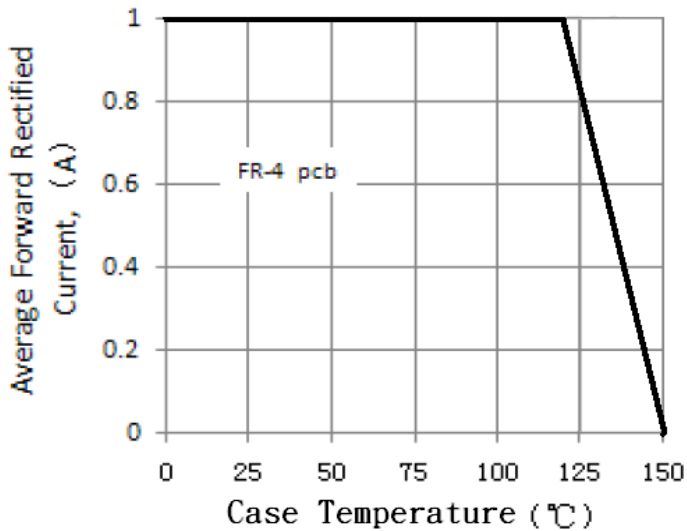


Figure 1. Forward Current Derating Curve

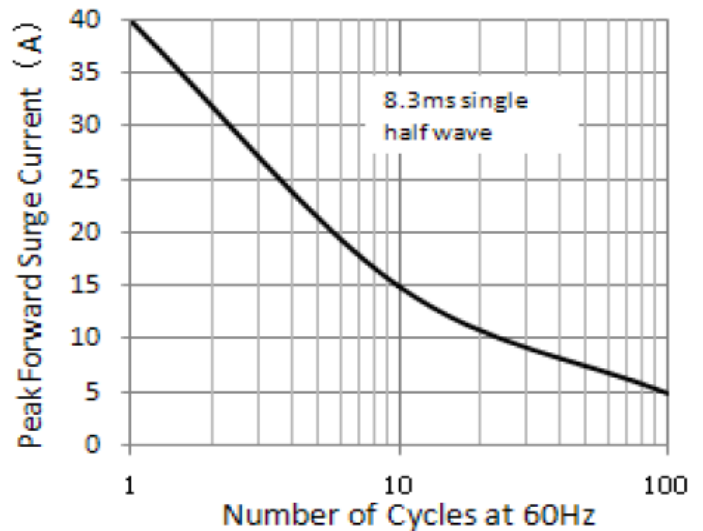


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

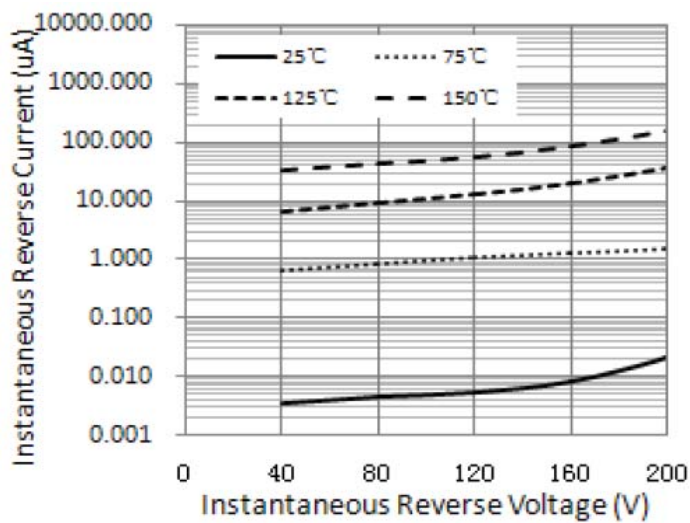


Figure 3. Typical Instantaneous Reverse Characteristics

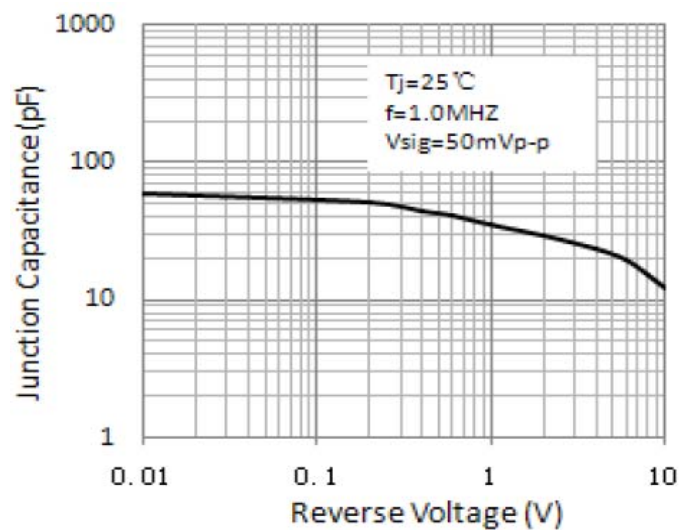


Figure 4. Typical Junction Capacitance

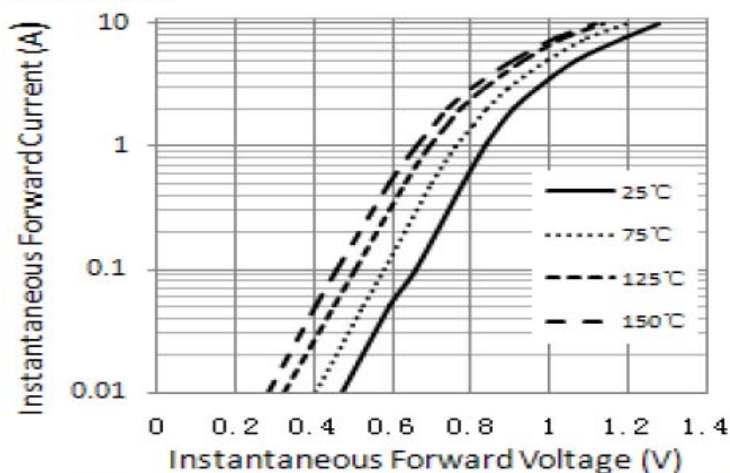


Figure 5. Typical Instantaneous Forward Characteristics