

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

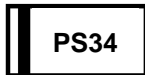
FEATURES

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

SOD-123DT



MARKING



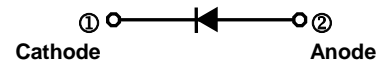
↑
Cathode

PACKAGE INFORMATION

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

ORDER INFORMATION

Part Number	Type
SM320DT-C~SM340DT-C	Lead (Pb)-free and Halogen-free



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

Parameter	Symbol	Part Number			Unit
		SM320DT-C	SM330DT-C	SM340DT-C	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	
Minimum Breakdown Voltage @ I _R =1mA	V _{BR}	40			V
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<8.3ms)	I ² t	42			A ² S
Maximum Instantaneous Forward Voltage @ I _F =3A	V _F	T _A =25°C	0.51		V
		T _A =125°C	0.45		
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _A =25°C	50		uA
		T _A =125°C	10		mA
Typical Junction Capacitance	C _J	229			pF
Typical Thermal Resistance from Junction-Ambient ¹	R _{θJA}	60			°C/W
Typical Thermal Resistance from Junction-Case ²	R _{θJC}	28			
Typical Thermal Resistance from Junction-Lead ¹	R _{θJL}	6			
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 5x5mm copper pads, 2oz, FR-4 PCB.
2. The thermal resistance from junction to 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

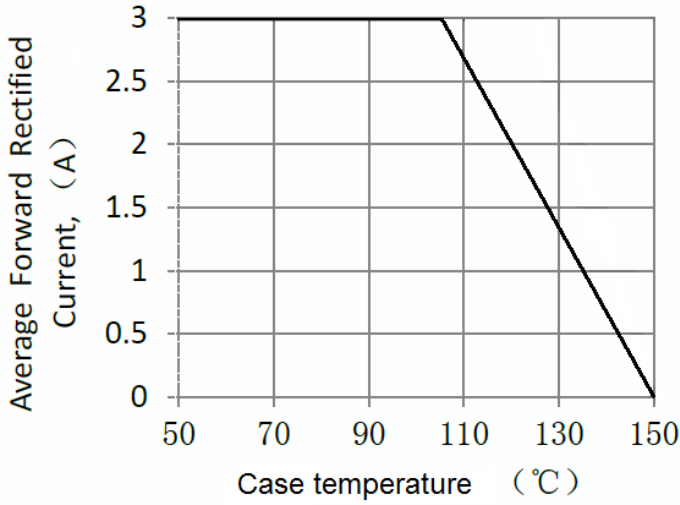


Figure 1. Forward Current Derating Curve

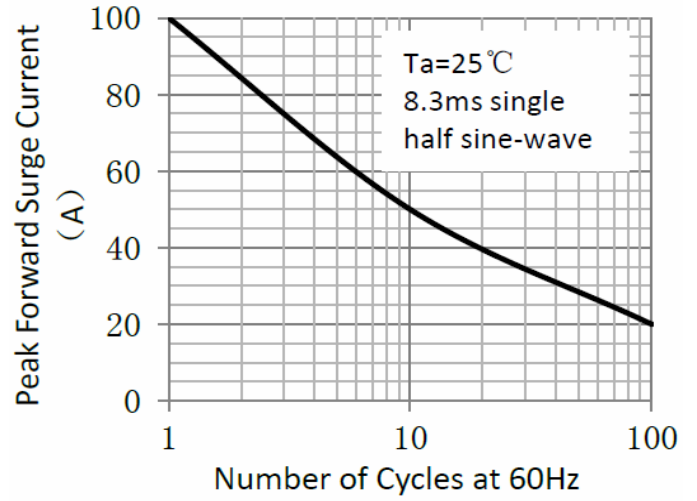


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

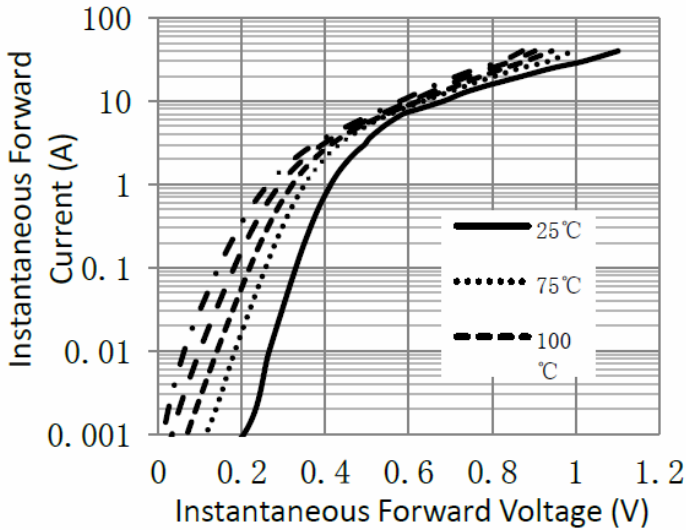


Figure 3. Typical Instantaneous Forward Characteristics

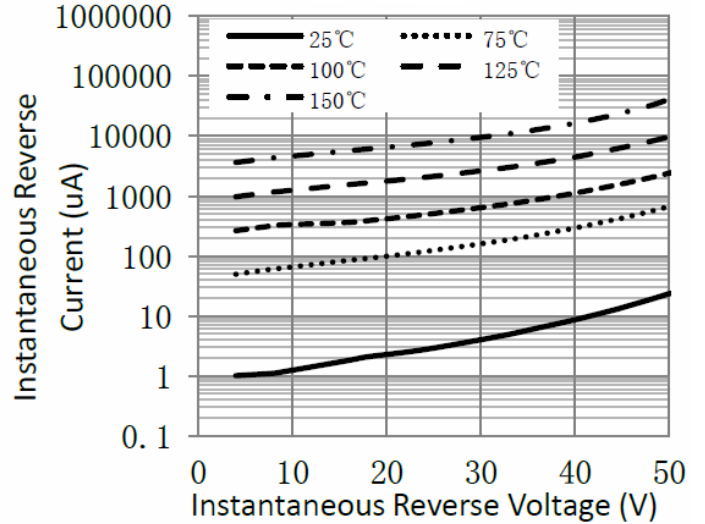


Figure 4. Typical Reverse Characteristics

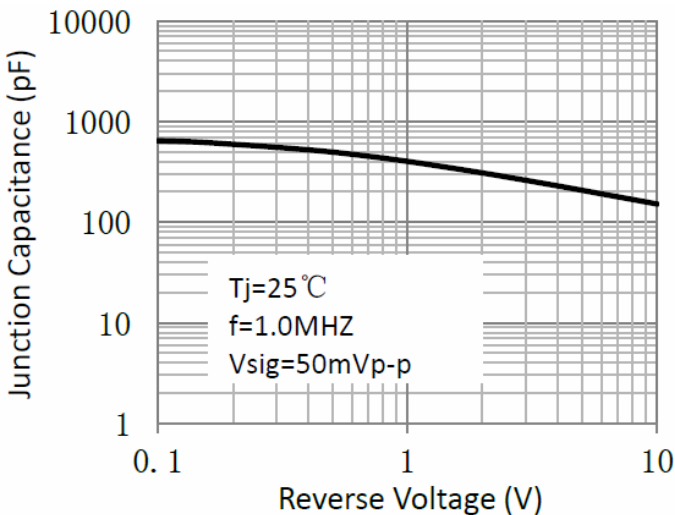
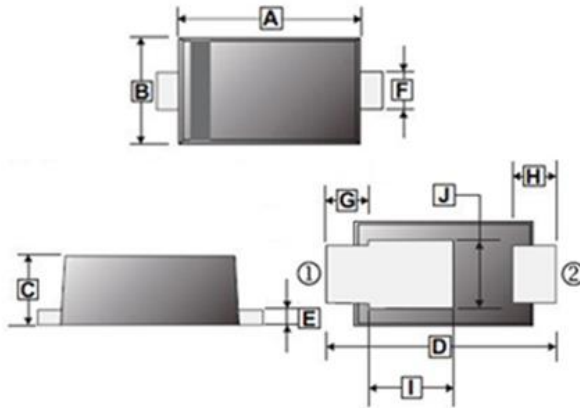


Figure 5. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS

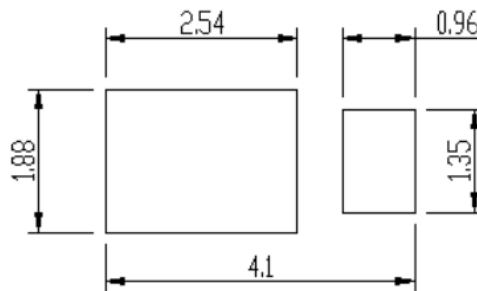
SOD-123DT



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

MOUNTING PAD LAYOUT

SOD-123DT



*Dimensions in millimeters