

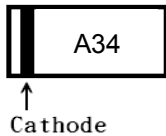
RoHS Compliant Product

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

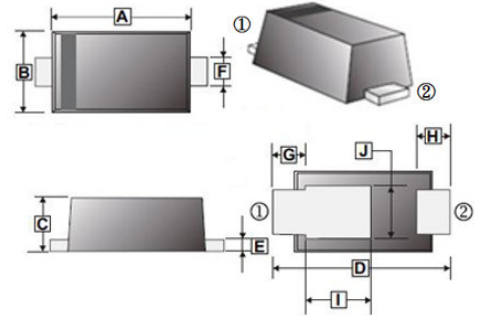
FEATURES

- Heatsink Structure
- Low Profile, Typical Thickness 0.8mm
- Super Low VF Schottky Barrier Diodes
- Moisture Sensitivity: Level 1, Per J-STD-020
- High Temperature Soldering Guaranteed: 260°C/10 Seconds
- Qualified to AEC-Q101 Standards for High Reliability

MARKING



SOD-123DT



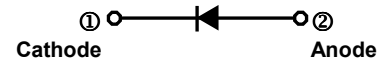
PACKAGE INFORMATION

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

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

ORDER INFORMATION

Part Number	Type
SM320DTCR-C~SM340DTCR-C	Lead (Pb)-free and Halogen-free



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

Parameter	Symbol	Part Number			Unit
		SM320DTCR-C	SM330DTCR-C	SM340DTCR-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	
Maximum Average Forward Rectified Current	I _F	3			A
Peak Forward Surge Current @8.3 ms 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	V _F	I _F =3A, T _A =25°C	0.51		V
		I _F =3A, 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 5×5mm copper pads, 2OZ, FR4 PCB.
2. The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads, 2OZ, FR4 PCB.

CHARACTERISTIC CURVES

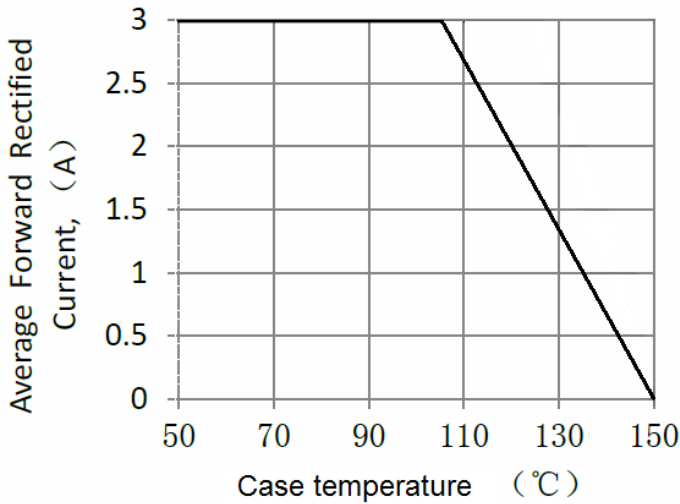


Figure 1. Forward Current Derating Curve

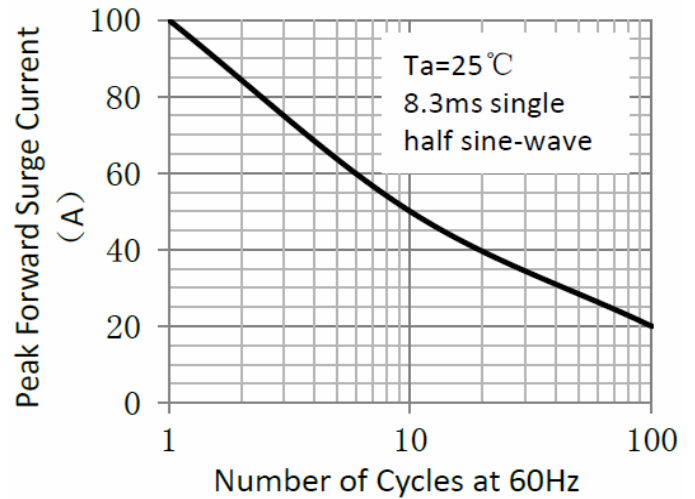


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

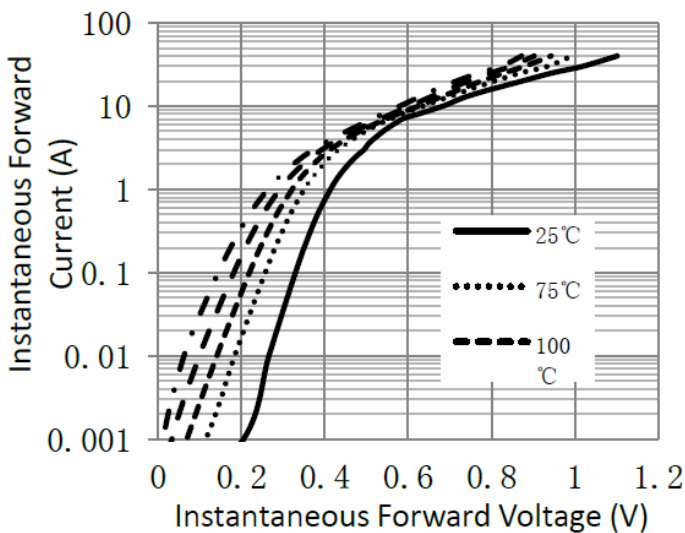


Figure 3. Typical Instantaneous Forward Characteristics

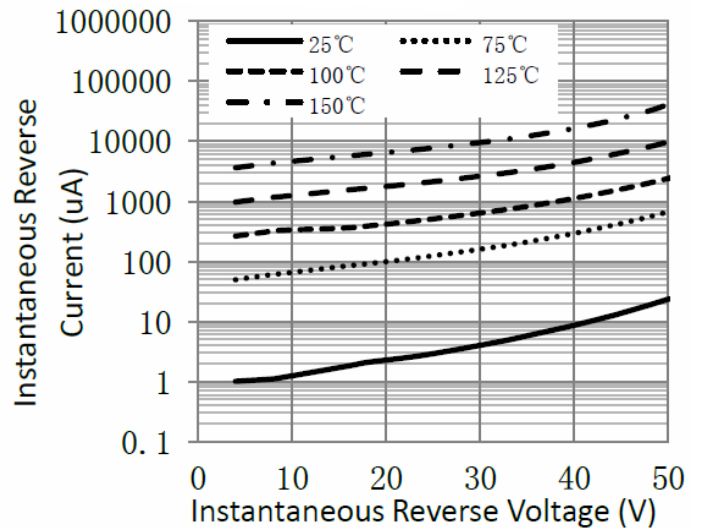


Figure 4. Typical Reverse Characteristics

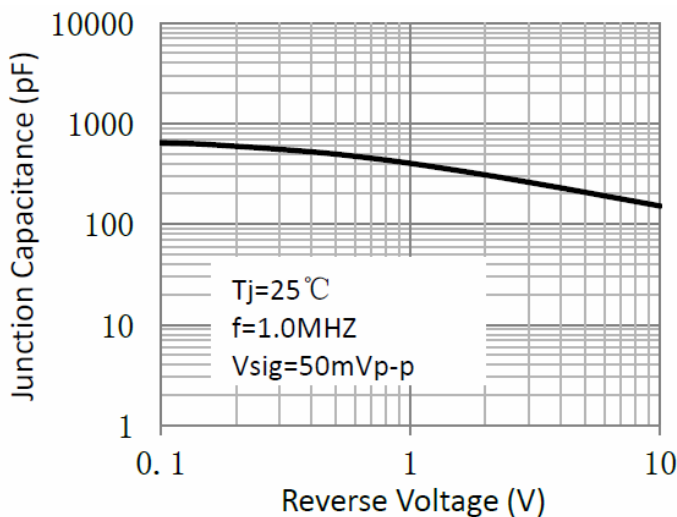


Figure 5. Typical Junction Capacitance