Elektronische Bauelemente

SM2100DT

Voltage 100V, 2Amp

Surface Mount Schottky Barrier Rectifiers

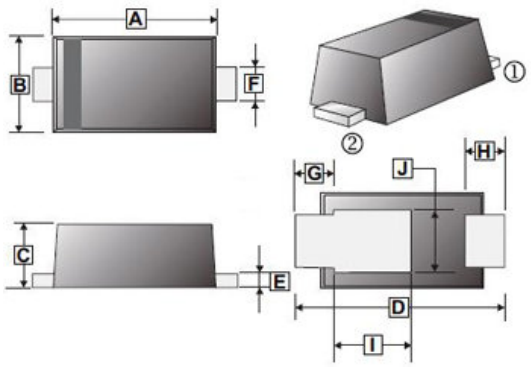
RoHS Compliant Product

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

FEATURES

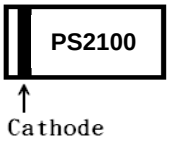
- Heatsink Structure
- Low Profile, Typical Thickness 0.8mm
- Super Low VF Schottky Barrier Diodes
- Moisture Sensitivity: Level 1, per J-STD-020
- High Temperature Soldering Guaranteed: 260℃/10 se conds

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

MARKING

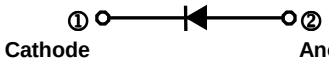


PACKAGE INFORMATION

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

ORDER INFORMATION

Part Number	Type
SM2100DT	Lead (Pb)-free
SM2100DT-C	Lead (Pb)-free and Halogen-free



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

Parameter		Symbol	Ratings	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Maximum RMS Voltage		V_{RMS}	70	V
Maximum DC Blocking Voltage		V_{DC}	100	V
Maximum Average Forward Rectified Current		I_F	2	A
Peak Forward Surge Current @8.3ms Single Half Sine-Wave Superimposed on Rate Load		I_{FSM}	50	A
Rating for Fusing (t<8.3ms)		I^2t	10	A^2S
Maximum Instantaneous Forward Voltage @I_F=2A	T_A=25℃	V_F	0.8	V
	T_A=125℃		0.65	
Maximum DC Reverse Current @ Rated DC Blocking Voltage	T_A=25℃	I_R	5	μA
	T_A=125℃		500	
Typical Junction Capacitance	4V, 1MHz	C_J	60	pF
Typical Thermal Resistance from Junction-Ambient [1]		$R_{\theta JA}$	65	℃/W
Typical Thermal Resistance from Junction-Case [2]		$R_{\theta JC}$	35	
Typical Thermal Resistance from Junction-Lead [1]		$R_{\theta JL}$	9	
Operating Junction and Storage Temperature		T_J, T_{STG}	-55~150	℃

Notes:

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

CHARACTERISTIC CURVES

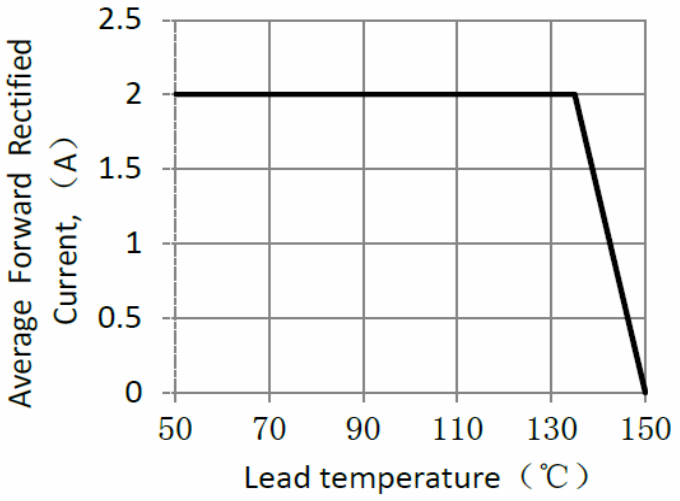


Figure 1.Forward Current Derating Curve

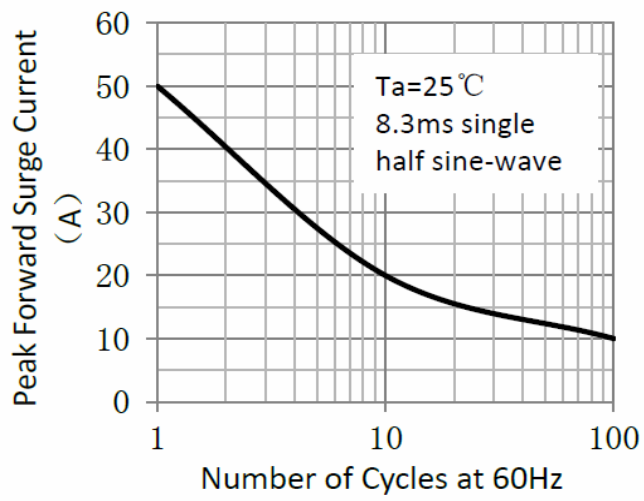


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

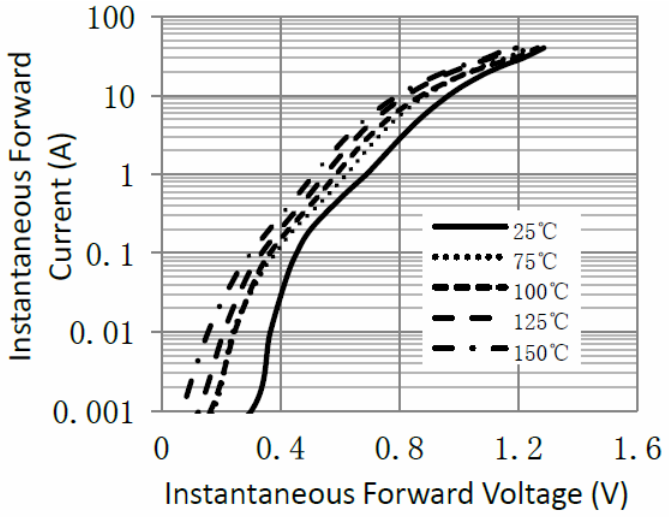


Figure 3. Typical Instantaneous Forward Characteristics

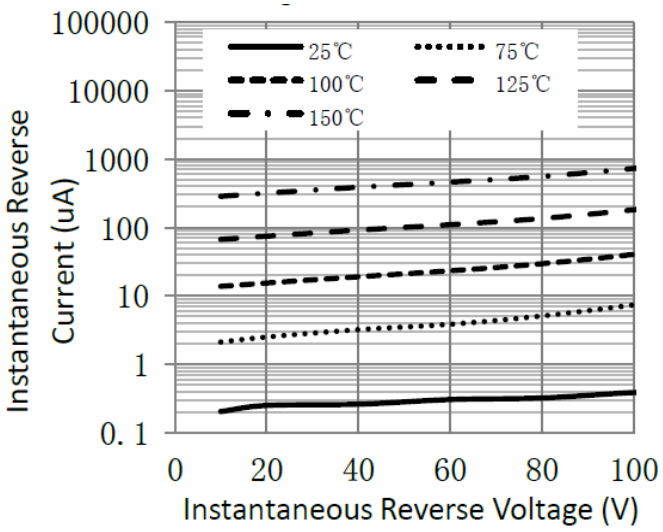


Figure 4. Typical Reverse Characteristics

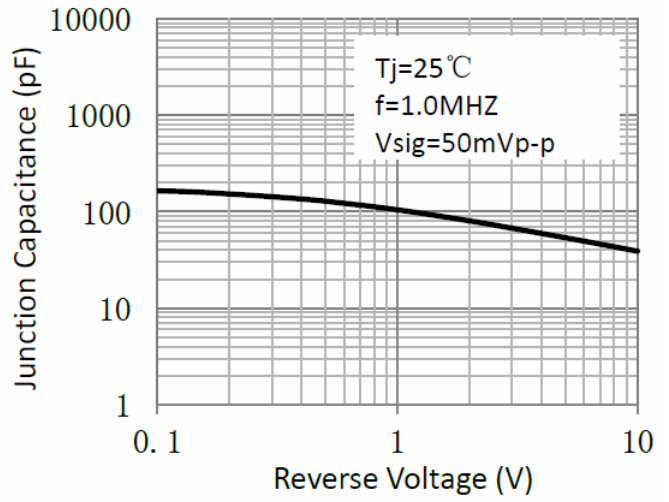


Figure 5. Typical Junction Capacitance