Elektronische Bauelemente

SM1100DT-C

Voltage 100V

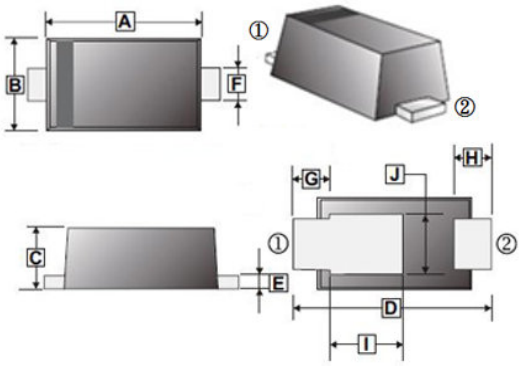
1.0 Amp Surface Mount Schottky Barrier Rectifiers

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

FEATURES

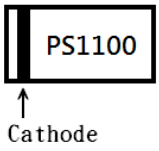
- Super Low V_F Schottky barrier diodes
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- Low leakage current
- Heatsink structure
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260℃/10 seconds

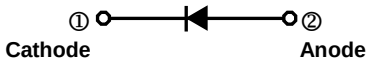
SOD-123DT



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

MARKING





PACKAGE INFORMATION

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

ORDER INFORMATION

Part Number	Type
SM1100DT-C	Lead (Pb)-free and Halogen-free

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

Parameter		Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Maximum RMS Voltage		V_{RMS}	70	
Maximum DC Blocking Voltage		V_{DC}	100	
Minimum Breakdown Voltage @I_R=1mA		V_{BR}	100	
Maximum Average Forward Rectified Current		I_F	1	A
Peak Forward Surge Current, 8.3ms single half sine-wave Superimposed on rate load		I_{FSM}	30	A
Rating for Fusing (t<8.3ms)		I^2t	3.8	A^2S
Maximum Instantaneous Forward Voltage @I_F=1A	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	1	uA
	T_A=125℃		150	
Typical Junction Capacitance [3]		C_J	28	pF
Typical Thermal Resistance, Junction-Ambient [1]		$R_{\theta JA}$	65	℃/W
Typical Thermal Resistance, Junction-Case [2]		$R_{\theta JC}$	35	
Typical Thermal Resistance, 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 to ambient or lead, mounted on P.C.B with 5×5mm 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

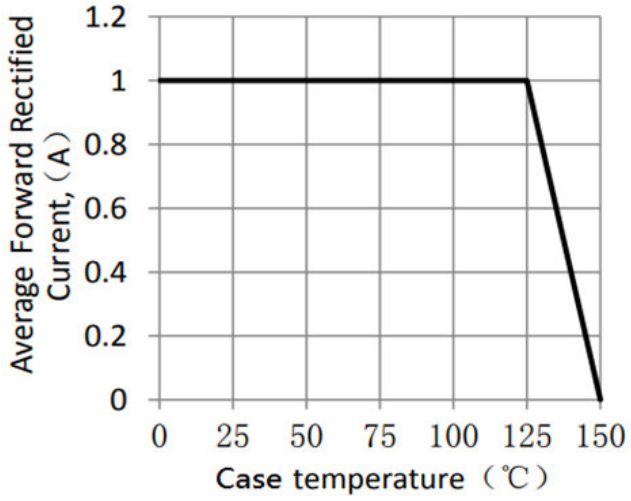


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

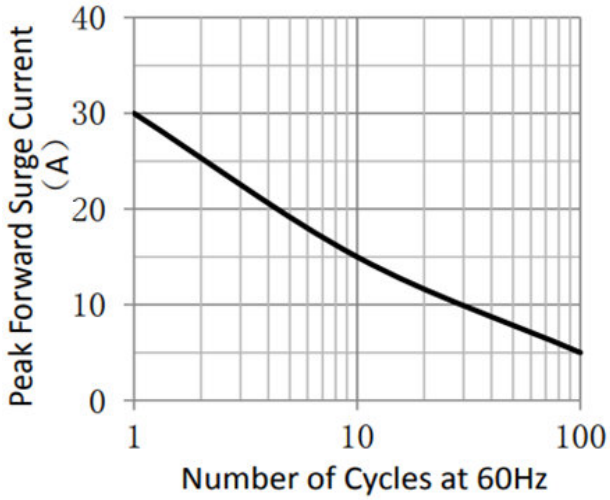


Figure 3. Typical Instantaneous Forward Characteristics

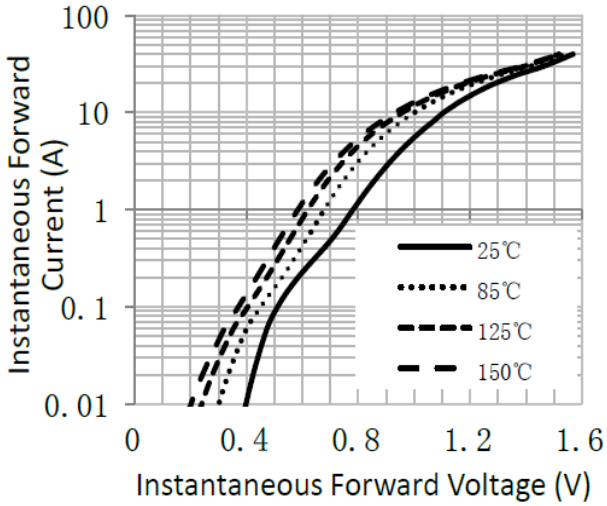


Figure 4. Typical Reverse Characteristics

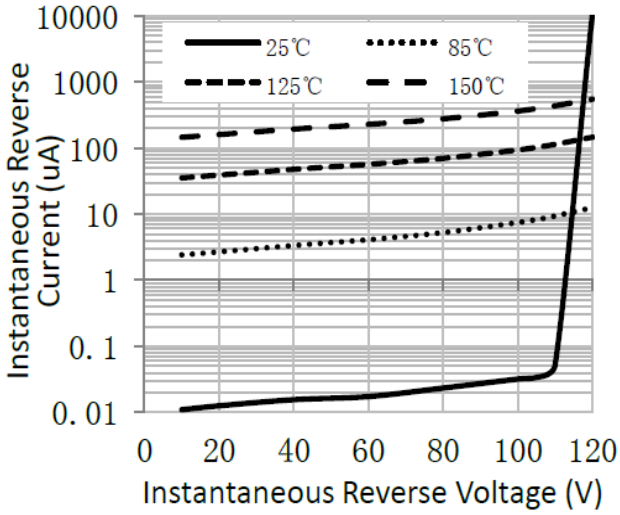


Figure 5. Typical Junction Capacitance

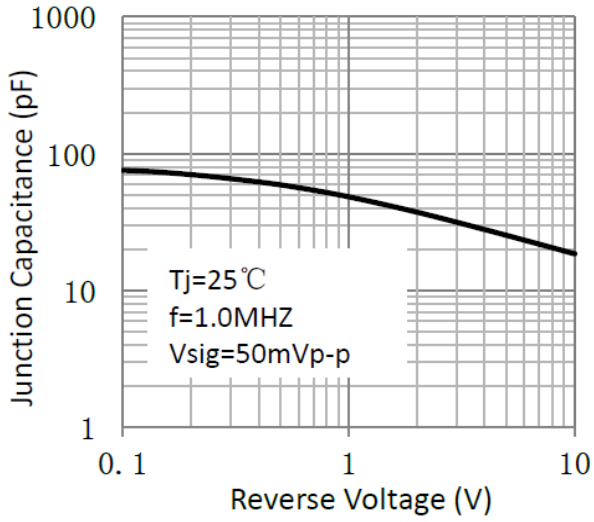
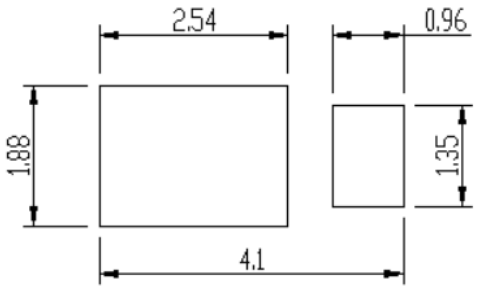


Figure 6. Mounting Pad Layout



*Dimensions in millimeters