Elektronische Bauelemente

SM160DT-C

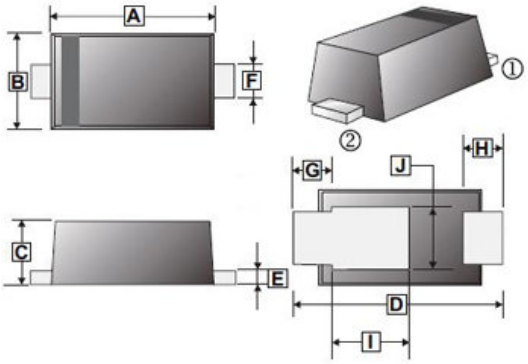
Voltage 60V, 1.0Amp
Surface Mount Schottky Barrier Rectifiers

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

FEATURES

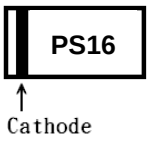
- Heatsink Structure
- Low Profile, Typical Thickness 0.8mm
- Moisture Sensitivity: Level 1, Per J-STD-020
- High Temperature Soldering Guaranteed: 260℃/10 Se conds

SOD-123DT



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.90	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

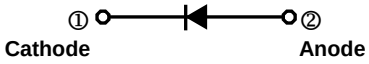


PACKAGE INFORMATION

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

ORDER INFORMATION

Part Number	Type
SM160DT-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}	60	V
Maximum RMS Voltage		V_{RMS}	42	V
Maximum DC Blocking Voltage		V_{DC}	60	V
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	3.75	A^2S
Maximum Instantaneous Forward Voltage @I_F=1A	T_A=25℃	V_F	0.65	V
	T_A=125℃		0.60	
Maximum DC Reverse Current @Rated DC Blocking Voltage	T_A=25℃	I_R	50	uA
	T_A=125℃		10	mA
Typical Junction Capacitance [3]		C_J	34	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 & 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, FR4 PCB.
2. The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads, 2OZ, FR4 PCB.
3. Measured at 1MHz and applied reverse voltage of 4V D.C.

CHARACTERISTIC CURVES

Figure 1.Forward Current Derating Curve

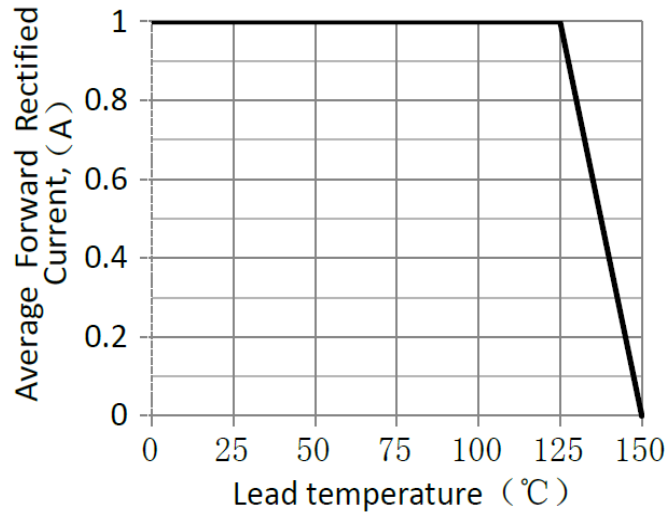


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

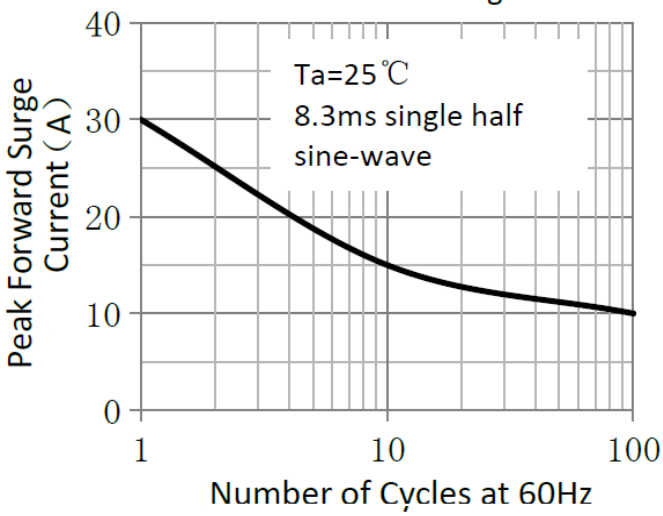


Figure 3. Typical Instantaneous Forward Characteristics

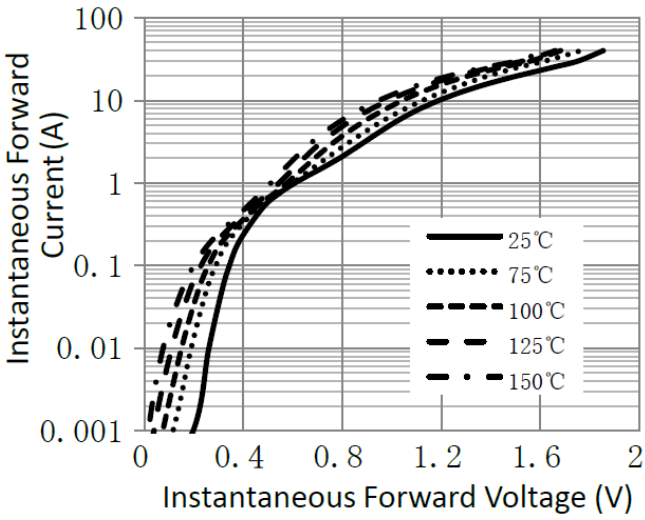


Figure 4. Typical Reverse Characteristics

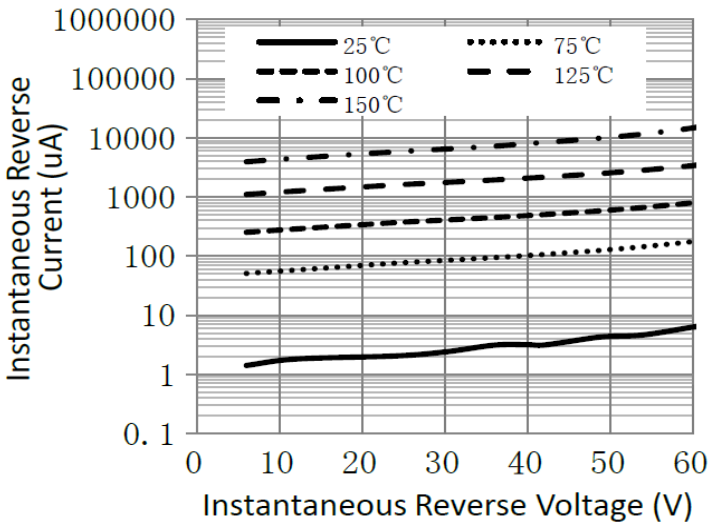


Figure 5. Typical Junction Capacitance