Elektronische Bauelemente

SM120RT~SM1100RT

Voltage 20V ~ 100 V

1.0 Amp Surface Mount Schottky Barrier Rectifiers

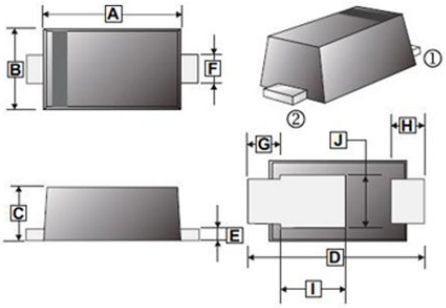
RoHS Compliant Product

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

FEATURES

- Low power loss, high efficiency
- Low leakage, Low forward voltage drop
- High current capability
- High speed switching
- High surge capabitity
- High reliability
- Anti-ESD

SOD-123T



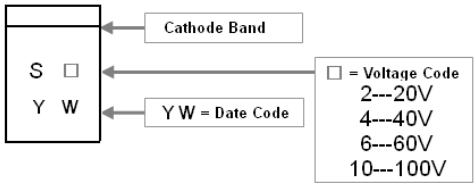
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.7	2.9	F	0.7	0.9
B	1.75	1.95	G	0.75	0.85
C	0.9	1	H	0.75	0.85
D	3.6	3.8	I	1.28	1.32
E	0.2 Typ.				

MECHANICAL DATA

- Epoxy: Device has UL flammability classification 94V-0
- Mounting position: Any
- Polarity: Color band denotes cathode end
- Flat lead frame

MARKING

Part Number	Marking
SM120RT	S2
SM140RT	S4
SM160RT	S6
SM1100RT	S10



PACKAGE INFORMATION

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

MAXIMUM RATINGS (T_A=25°C unless otherwise specified.)

Parameter		Symbol	Part Number				Unit
			SM120RT	SM140RT	SM160RT	SM1100RT	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	40	60	100	V
Maximum RMS Voltage		V_{RMS}	17	28	42	70	V
Maximum DC Blocking Voltage		V_{DC}	20	40	60	100	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @T_A=75°C		I_O	1				A
Peak Forward Surge Current@8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	25				A
Typical Current Squared Time		I^2t	1.6				A^2S
Maximum Forward Voltage @1A		V_F	0.55		0.7	0.85	V
Maximum Average Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	0.2				mA
	T_A=100°C		2				
Total Junction Capacitance [2]		C_T	75				pF
Typical Thermal Resistance [1]		$R_{\theta JA}$	110				°C/W
Typical Thermal Resistance [1]		$R_{\theta JL}$	30				°C/W
Operating and Storage Temperature Range		T_J ,T_{STG}	-55~150				°C

Notes:

1. Thermal Resistance: Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 Volts.

CHARACTERISTIC CURVES

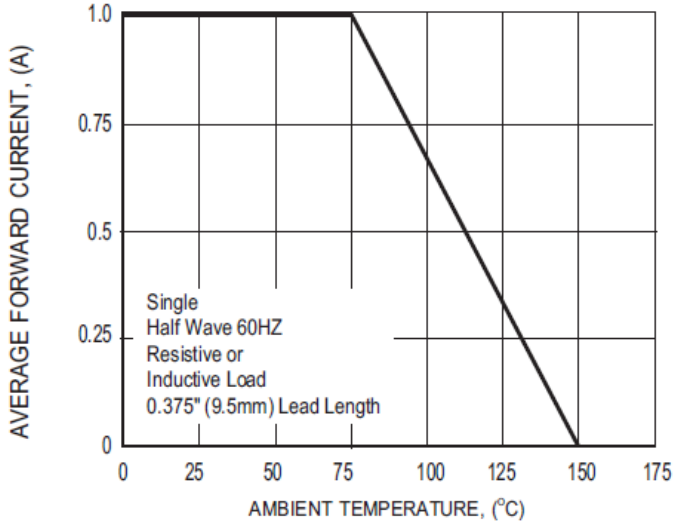


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

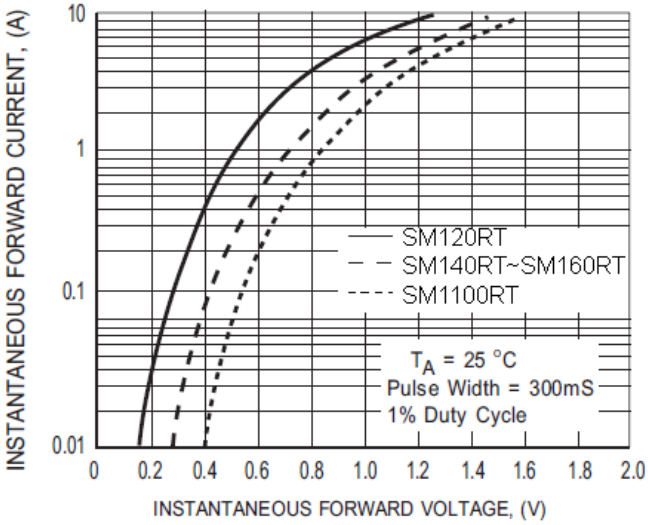


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

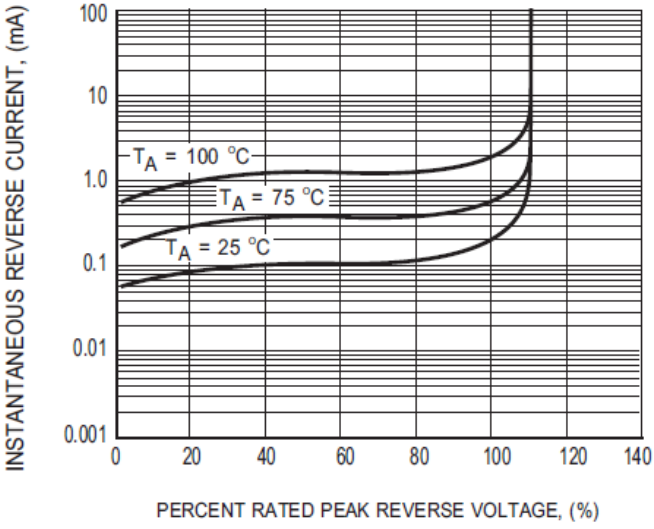


FIG.3 TYPICAL REVERSE CHARACTERISTICS

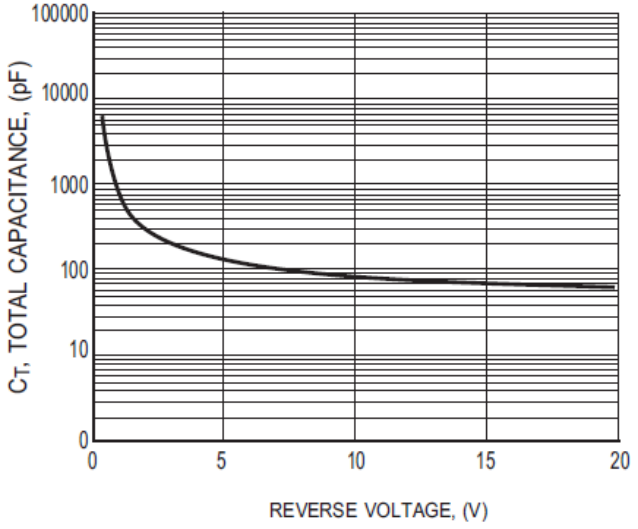


FIG.4 TYPICAL TOTAL CAPACITANCE

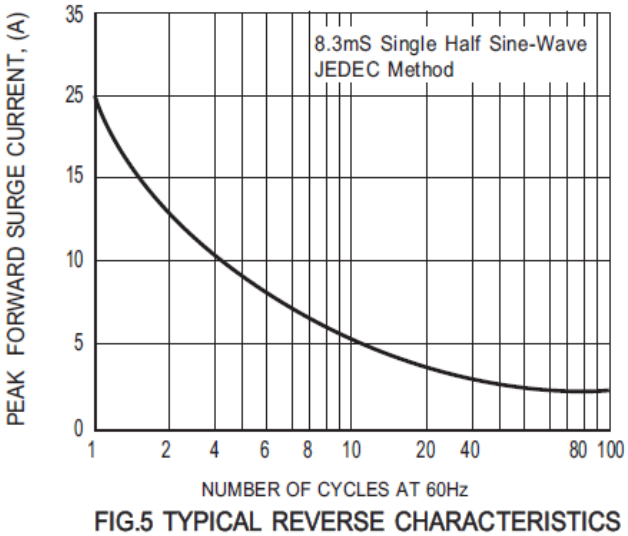


FIG.5 TYPICAL REVERSE CHARACTERISTICS