

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

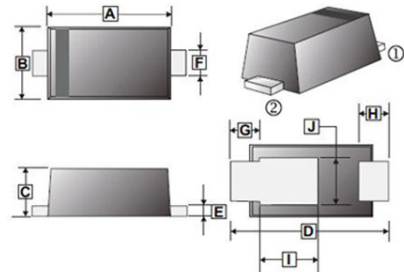
### FEATURES

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

### MECHANICAL DATA

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

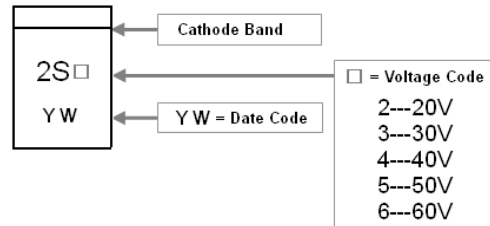
### SOD-123T



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.				

### MARKING

Part Number	Marking	Part Number	Marking
SM220RT	2S2	SM250RT	2S5
SM230RT	2S3	SM260RT	2S6
SM240RT	2S4		



### PACKAGE INFORMATION

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

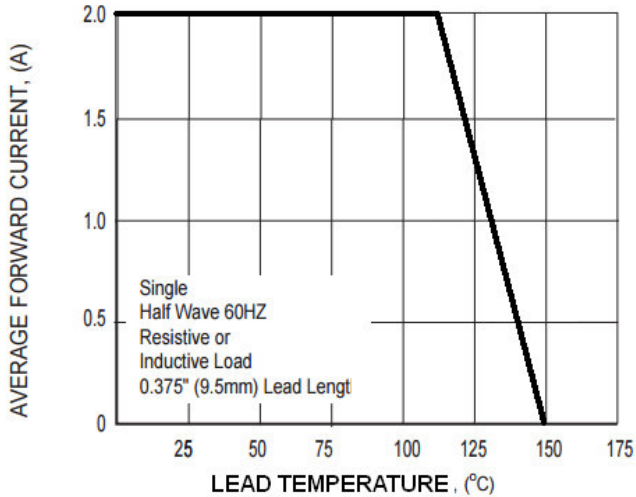
### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified.)

Parameter	Symbol	Part Number					Unit
		SM220RT	SM230RT	SM240RT	SM250RT	SM260RT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75°C	I <sub>o</sub>	2					A
Peak Forward Surge Current@8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	60					A
Typical Current Squared Time	I <sup>2</sup> t	14.94					A <sup>2</sup> S
Maximum Forward Voltage @2A	V <sub>F</sub>	0.55			0.7		V
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> =25°C	0.2				mA
		T <sub>A</sub> =100°C	2				
Total Capacitance <sup>1</sup>	C <sub>T</sub>	75					pF
Typical Thermal Resistance <sup>2</sup>	R <sub>θJL</sub>	30					°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150					°C

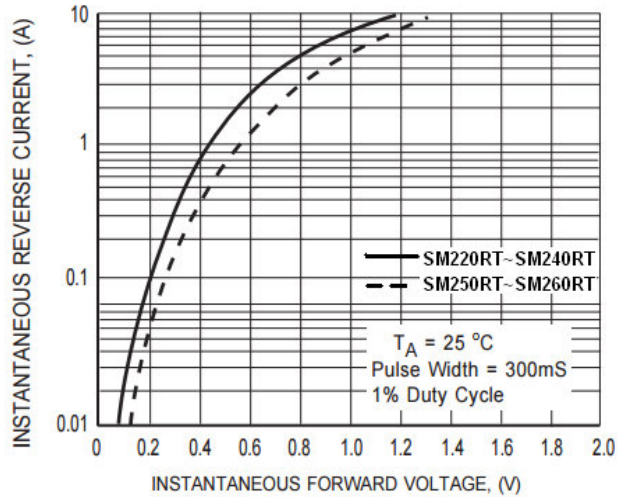
Notes:

1. Measured at 1 MHz and applied reverse voltage of 4 Volts.
2. Thermal Resistance: Mounted on PCB.

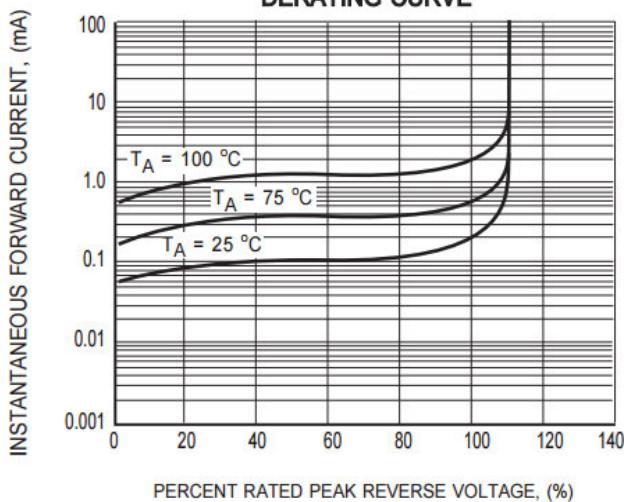
**CHARACTERISTIC CURVES**



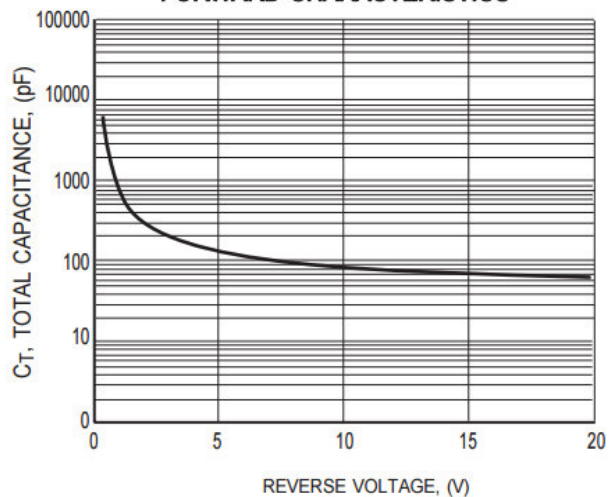
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



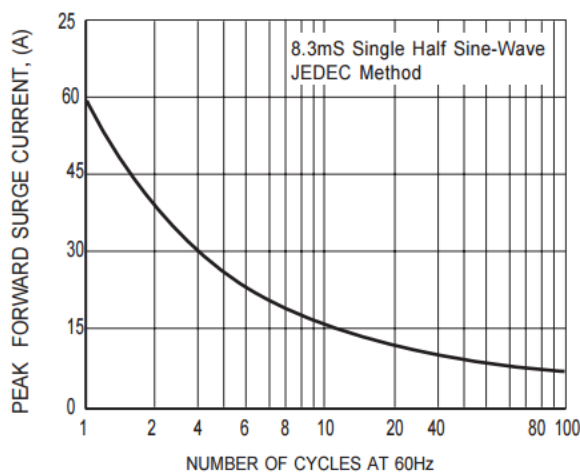
**FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 MAXIMUM REVERSE CHARACTERISTICS**



**FIG.4 TYPICAL TOTAL CAPACITANCE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**