

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

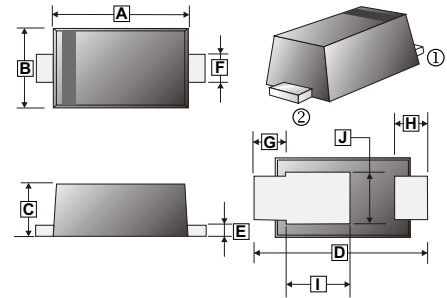
FEATURES

- Schottky barrier rectifier
- Guardring protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance

MECHANICAL DATA

- Case: SOD-123T molded plastic body
- Polarity: Color band denotes cathode end
- Mounting position: Any

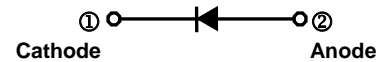
SOD-123T



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	2.90	F	0.70	0.90
B	1.75	1.95	G	0.75	0.85
C	0.90	1.00	H	0.75	0.85
D	3.60	3.80	I	1.28	1.32
E	0.20 Typ.		J	1.08	1.12

PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOD-123T	3K	7' inch



MARKING CODE

Part Number	Marking Code	Part Number	Marking Code
SM120T	S2	SM160T	S6
SM130T	S3	SM180T	S8
SM140T	S4	SM190T	S9
SM150T	S5	SM1100T	SA

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$ unless otherwise specified.)

Parameter	Symbol	Part Number								Units	Test Conditions
		SM 120T	SM 130T	SM 140T	SM 150T	SM 160T	SM 180T	SM 190T	SM 1100T		
Recurrent Peak Reverse Voltage (Max.)	V_{RRM}	20	30	40	50	60	80	90	100	V	
RMS Voltage (Max.)	V_{RMS}	14	21	28	35	42	56	63	70	V	
Reverse Voltage (Max.)	V_R	20	30	40	50	60	80	90	100	V	
Forward Voltage (Max.)	V_F	0.50		0.75		0.85			V	$I_{FM}=1.0A$ (Note 1)	
Forward Rectified Current (Max.)	$I_{F(AV)}$	1								A	$T_L=90^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	40								A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
Reverse Current (Max.)	I_R	0.2				0.5				mA	$T_J=25^\circ\text{C}$
		6			5			$T_J=125^\circ\text{C}$			
Thermal Resistance (Max.)	$R_{\theta JL}$	28								$^\circ\text{C/W}$	Junction to Lead
Operating Temperature Range	T_J	-55 ~ 125								$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-55 ~ 150								$^\circ\text{C}$	

Note:

1. Pulse test : Pulse width 300 μs , duty cycle 1%

CHARACTERISTIC CURVES

FIG.1 – FORWARD DERATING CURVE

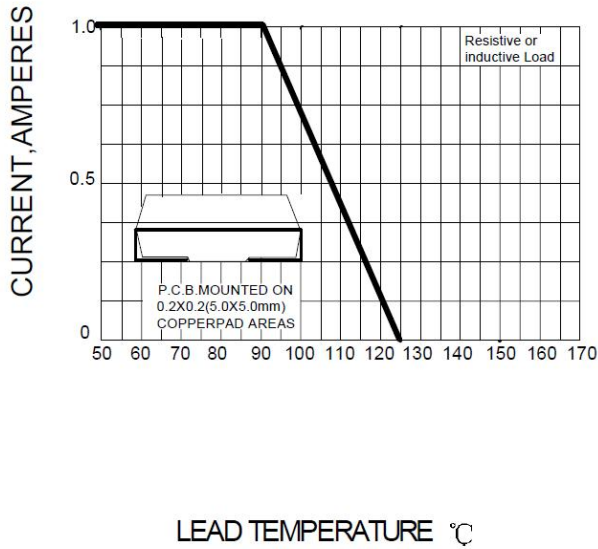


FIG.2 – PEAK FORWARD SURGE CURRENT

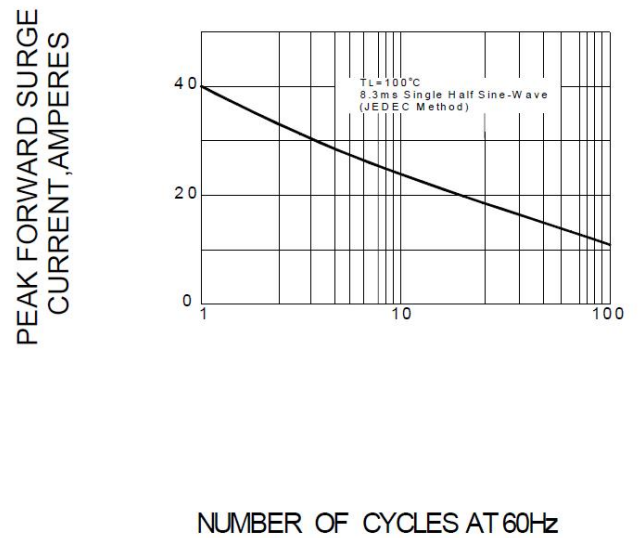


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

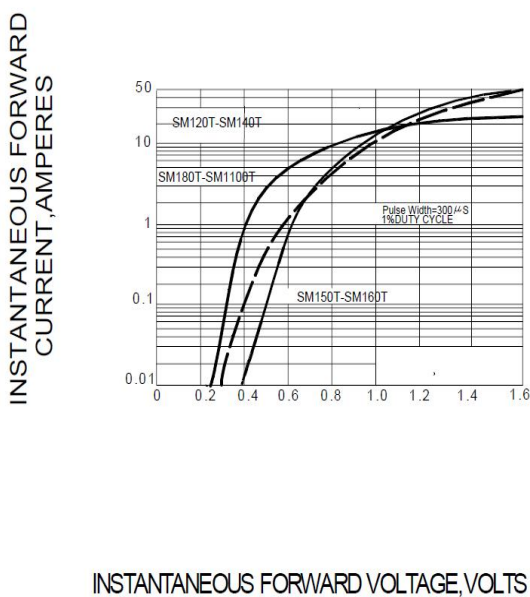


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

