

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

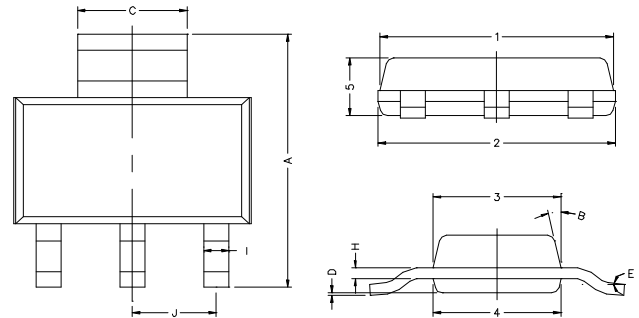
**SOT-223**

**FEATURES**

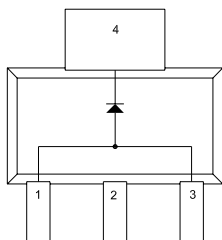
- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 1.0 grams(Approximately)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.70	7.30	B	13°TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80



**LEAD CODE:**  
1) ANODE  
2) CATHODE  
3) ANODE  
4) CATHODE

Pin 1 and Pin 3 are common.  
Pin 2 and Pin 4 are common.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	SM540ZT	UNITS
Maximum Recurrent Peak Reverse Voltage	40	V
Working Peak Reverse Voltage	40	V
Maximum DC Blocking Voltage	40	V
Maximum Average Forward Rectified Current See Fig. 1	5	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	125	A
Maximum Instantaneous Forward Voltage (I <sub>F</sub> = 5 Amps)	0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	0.2 30	mA
Typical Junction Capacitance (Note1)	380	pF
Typical Thermal Resistance R <sub>θJC</sub> (Note 2)	25	°C/W
Operating Temperature Range T <sub>J</sub>	-50 ~ +150	°C
Storage Temperature Range T <sub>STG</sub>	-65 ~ +175	°C

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

**RATING AND CHARACTERISTIC CURVES**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

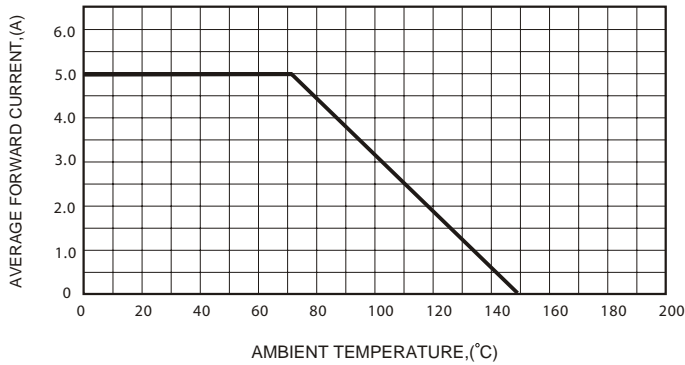


FIG.2-TYPICAL FORWARD CHARACTERISTICS

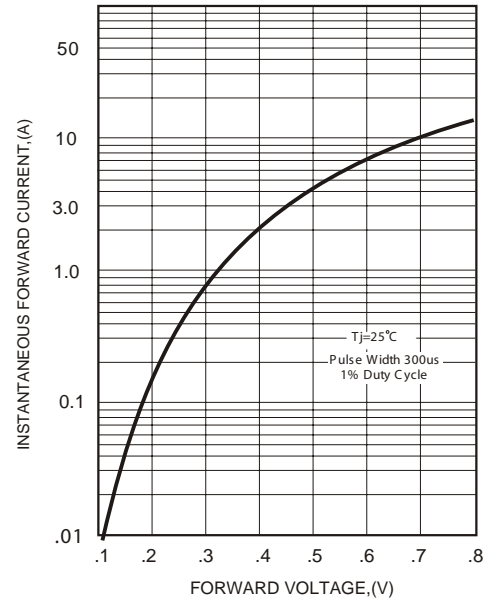


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

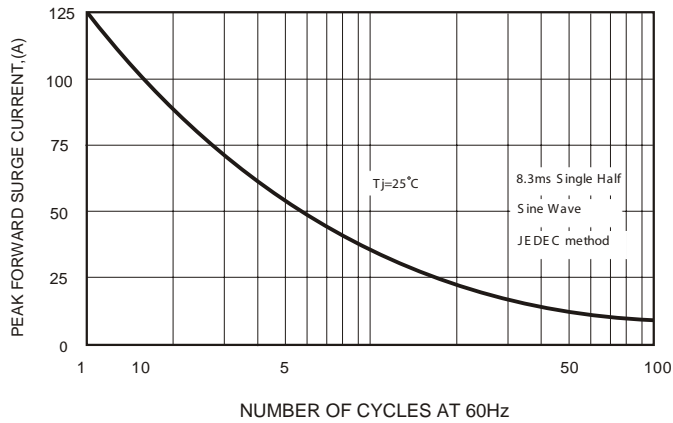


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

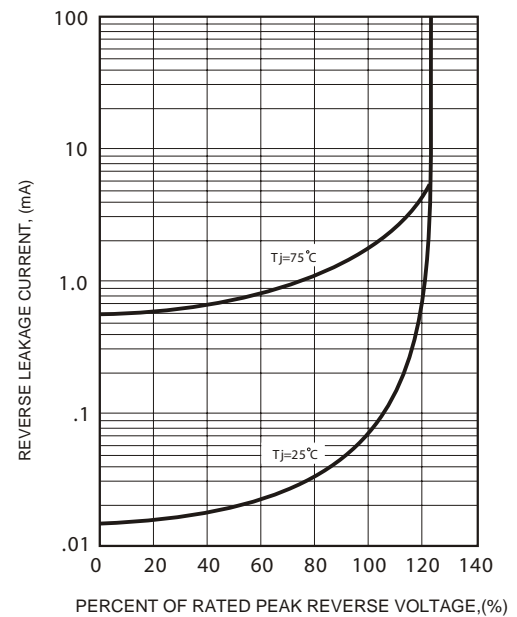


FIG.4-TYPICAL JUNCTION CAPACITANCE

