

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

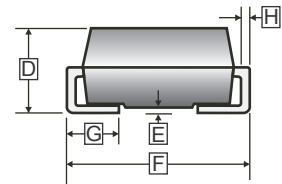
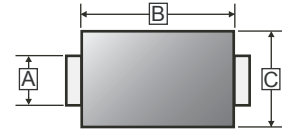
## FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief

## MECHANICAL DATA

- Case: Molded plastic SMA
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode
- Mounting position: Any

### SMA



## PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|---------|-----|-------------|
| SMA     | 5K  | 13' inch    |

| REF. | Millimeter |      | REF. | Millimeter |       |
|------|------------|------|------|------------|-------|
|      | Min.       | Max. |      | Min.       | Max.  |
| A    | 1.24       | 1.65 | E    | -          | 0.203 |
| B    | 3.99       | 4.60 | F    | 4.80       | 5.28  |
| C    | 2.40       | 2.90 | G    | 0.76       | 1.52  |
| D    | 1.90       | 2.44 | H    | 0.15       | 0.305 |

## 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, de-rate current by 20%.)

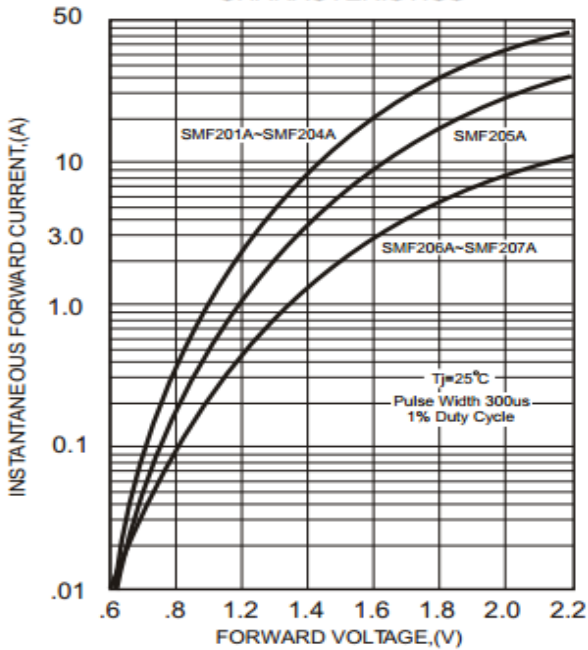
| Parameter  | Symbol            | Part Number |          |          |          |          |          |          | Unit         |
|--|-------------------|-------------|----------|----------|----------|----------|----------|----------|--------------|
|  |                   | SMF 201A    | SMF 202A | SMF 203A | SMF 204A | SMF 205A | SMF 206A | SMF 207A |              |
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$         | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V            |
| Maximum RMS Voltage  | $V_{RMS}$         | 35          | 70       | 140      | 280      | 420      | 560      | 700      | V            |
| Maximum DC Blocking Voltage  | $V_{DC}$          | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V            |
| Maximum Average Forward Rectified Current, 375"(9.5mm) Lead Length at $T_A=55^\circ C$ | $I_F$             | 2           |          |          |          |          |          |          | A            |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load     | $I_{FSM}$         | 50          |          |          |          |          |          |          | A            |
| Maximum Instantaneous Forward Voltage @ 2A   | $V_F$             | 1.3         |          |          | 1.5      | 1.7      |          | V        |              |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                | $T_J=25^\circ C$  | 5           |          |          |          |          |          |          | $\mu A$      |
|  | $T_J=125^\circ C$ | 200         |          |          |          |          |          |          |              |
| Maximum Reverse Recovery Time <sup>1</sup>   | $T_{RR}$          | 150         |          |          | 250      | 500      |          | nS       |              |
| Typical Thermal Resistance   | $R_{\theta JL}$   | 30          |          |          |          |          |          |          | $^\circ C/W$ |
|  | $R_{\theta JC}$   | 35          |          |          |          |          |          |          |              |
| Typical Junction Capacitance <sup>2</sup>  | $C_J$             | 50          |          |          |          |          |          |          | pF           |
| Operating & Storage Temperature  | $T_J, T_{STG}$    | -55~150     |          |          |          |          |          |          | $^\circ C$   |

Notes:

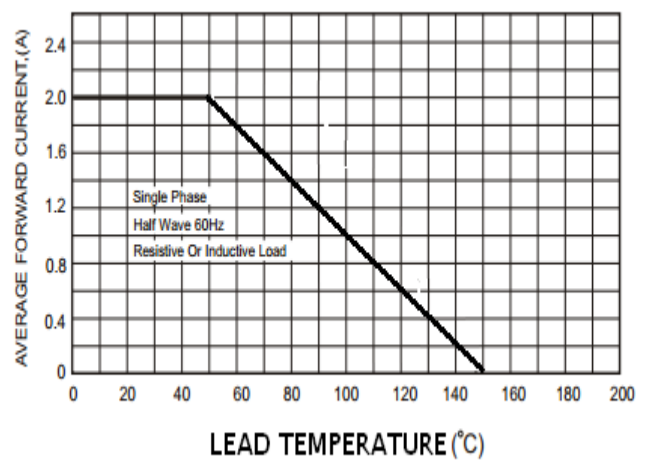
1. Reverse Recovery Time test condition :  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{RR}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

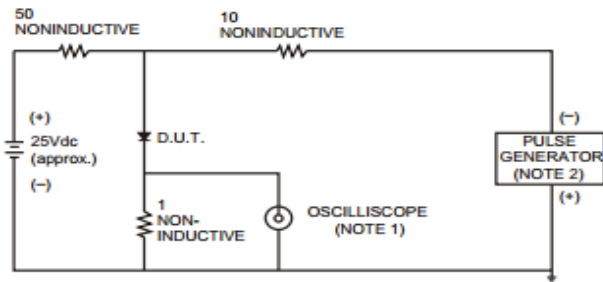
**FIG.1-TYPICAL FORWARD CHARACTERISTICS**



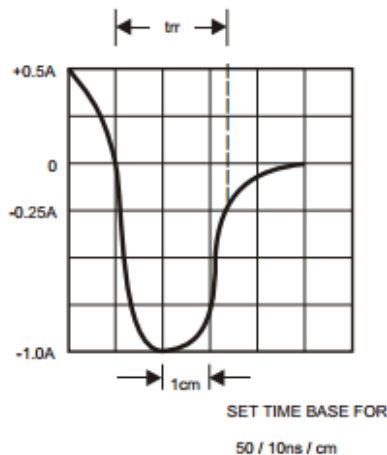
**FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS**



- NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
- 2. Rise Time= 10ns max., Source Impedance= 50 ohms.



**FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

