

### Features

- Low profile package
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:  
260°C/10 seconds at terminals



**RoHS**  
COMPLIANT



SMA (DO-214AC)

### Mechanical Data

- **Case:** JEDEC DO-214AC molded plastic
- **Terminals:** Solder plated, solderable per JESD22-B102D
- **Polarity:** Laser band denotes cathode end

### Major Ratings and Characteristics

$I_{F(AV)}$	2.0A
$V_{RRM}$	20 V to 200 V
$I_{FSM}$	50A
$V_F$	0.50V, 0.55V, 0.70V, 0.85V, 0.95V
$T_j \text{ max.}$	125 °C

### Maximum Ratings & Thermal Characteristics

( $T_A = 25\text{ °C}$  unless otherwise noted)

Items	Symbol	SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	2									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	50									A
Voltage rate of change (rated $V_R$ )	$dv/dt$	10000									V/ $\mu$ s
Thermal resistance from junction to lead <sup>(1)</sup>	$R_{\theta JL}$	35									°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +125									°C

Note 1: Mounted on P.C.B. with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

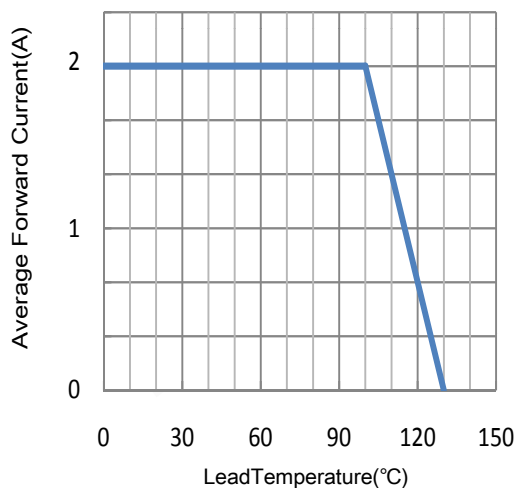
### Electrical Characteristics ( $T_A = 25\text{ °C}$ unless otherwise noted)

Items	Test conditions	Symbol	SS22	SS23~24	SS25~26	SS28~210	SS215~220	UNIT
Instantaneous forward voltage	$I_F=2.0A^{(2)}$	$V_F$	0.50	0.55	0.70	0.85	0.95	V
Reverse current	$V_R=V_{DC}$	$T_J=25\text{ °C}$	$I_R$					mA
		$T_J=100\text{ °C}$						

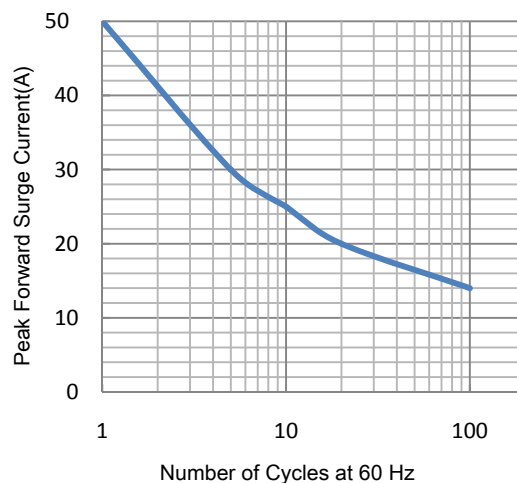
Note 2: Pulse test: 300 $\mu$ s pulse width, 1% duty cycle.

**Characteristic Curves** ( $T_A=25\text{ }^{\circ}\text{C}$  unless otherwise noted)

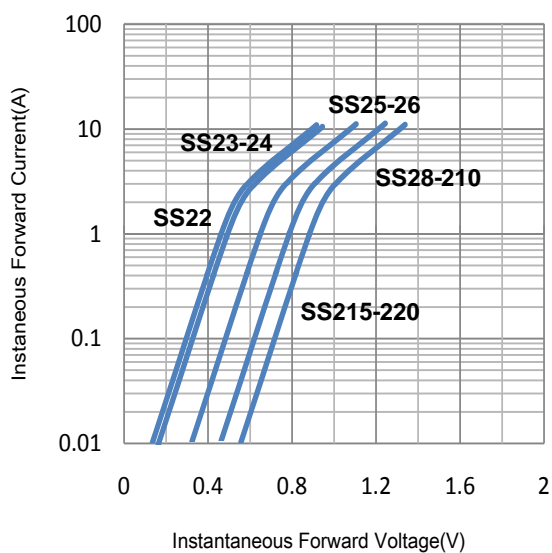
**Fig.1 Forward Current Derating Curve**



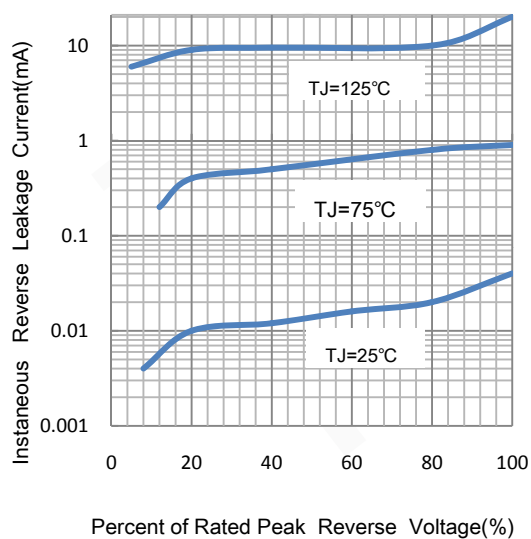
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



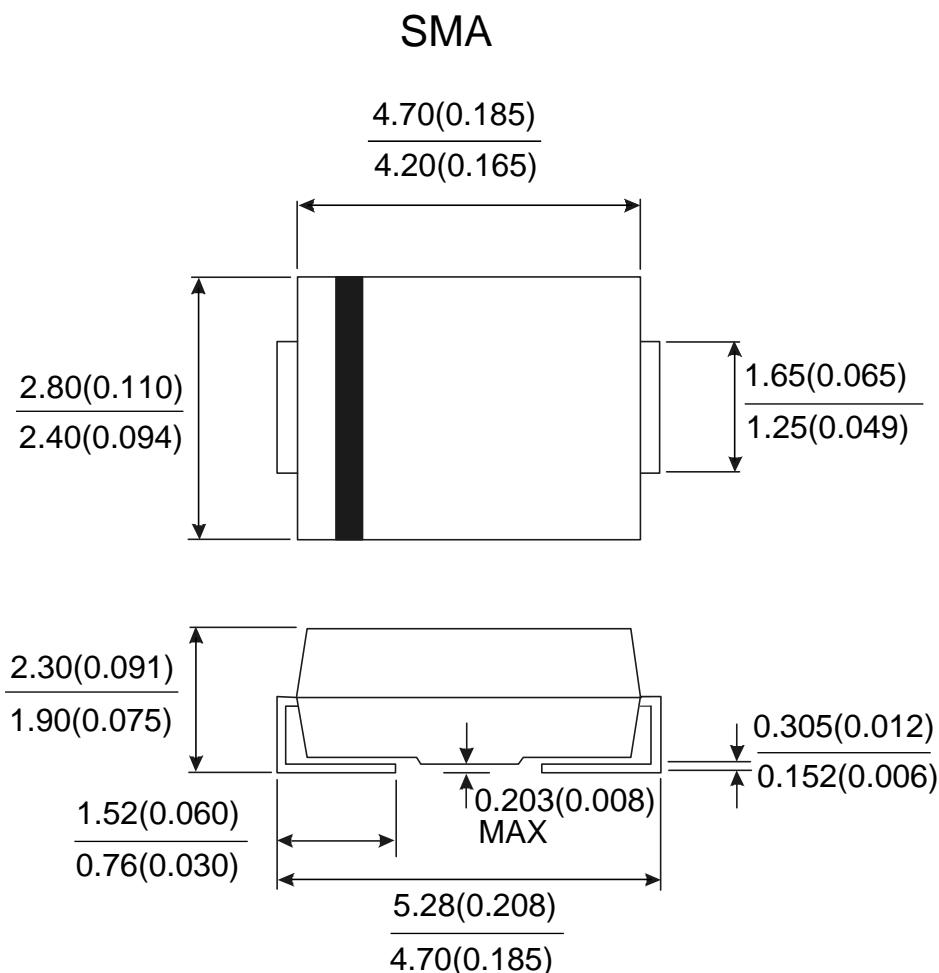
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Leakage Characteristics**



### Package Outline



### Notice

- Product is intended for use in general electronics applications.
- Product should be worked less than the ratings; if exceeded, may cause permanent damage or introduce latent failure mechanisms.
- The absolute maximum ratings are rated values and must not be exceeded during operation. The following are the general derating methods you design a circuit with a device.  
 $I_{F(AV)}$ : We recommend that the worst case current be no greater than 80% .  
 $T_J$ : Derate this rating when using a device in order to ensure high reliability. We recommend that the device be used at a  $T_J$  of below 100°C.

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