

### Major Ratings and Characteristics

$I_{F(AV)}$	5.0 A
$V_{RRM}$	20 V to 100 V
$I_{FSM}$	150 A
$V_F$	0.50V, 0.55 V , 0.70 V, 0.85V
$T_j \text{ max.}$	125 °C



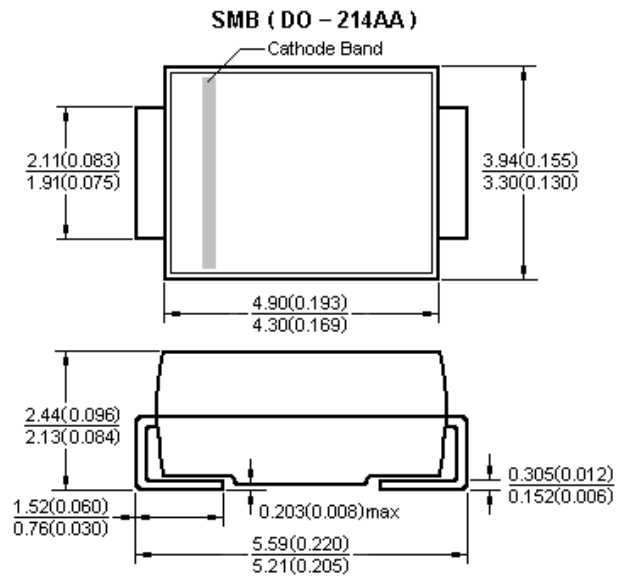
SMB ( DO – 214AA )

### Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:  
260°C/10 seconds at terminals
- Component in accordance to  
RoHS 2002/95/1 and WEEE 2002/96/EC

### Mechanical Date

- **Case:** JEDEC DO-214AA molded plastic body over passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end



Dimensions in millimeters and (inches)

### Maximum Ratings & Thermal Characteristics & Electrical Characteristics

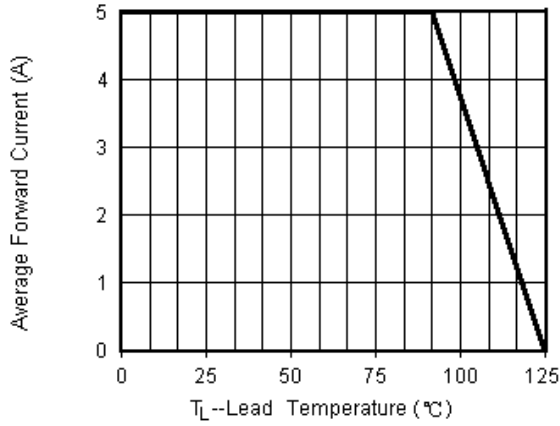
( $T_A = 25\text{ °C}$  unless otherwise noted)

	Symbol	SS52 SK 52	SS53 SK 53	SS54 SK 54	SS55 SK 55	SS56 SK 56	SS58 SK 58	SS510 SK 510	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current	$I_{F(AV)}$	5							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	150							A
Maximum instantaneous forward voltage at 5.0A	$V_F$	0.50	0.55	0.70		0.85			V
Maximum DC reverse current at Rated DC blocking voltage	$I_R$	0.5							mA
$T_A = 25\text{ °C}$ $T_A = 100\text{ °C}$		10				20			
Thermal resistance from junction to Lead	$R_{\theta JL}$	25							°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +125							°C

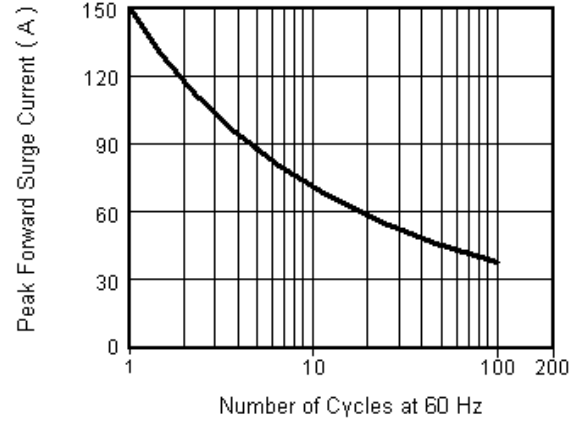
Note: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0 mm) copper pad areas

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

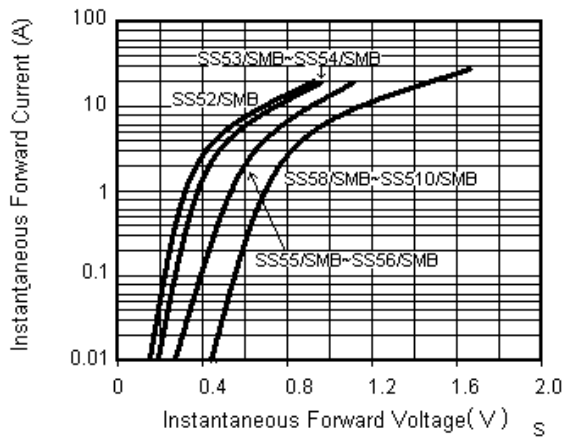
**Fig.1 Forward Current Derating Curve**



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



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Leakage Characteristics**

