

### Major Ratings and Characteristics

$I_{F(AV)}$	2.0 A
$V_{RRM}$	50 V to 600 V
$I_{FSM}$	50 A
$t_{rr}$	35 nS
$V_F$	0.95 V, 1.25 V, 1.7 V
$T_j \text{ max.}$	150 °C



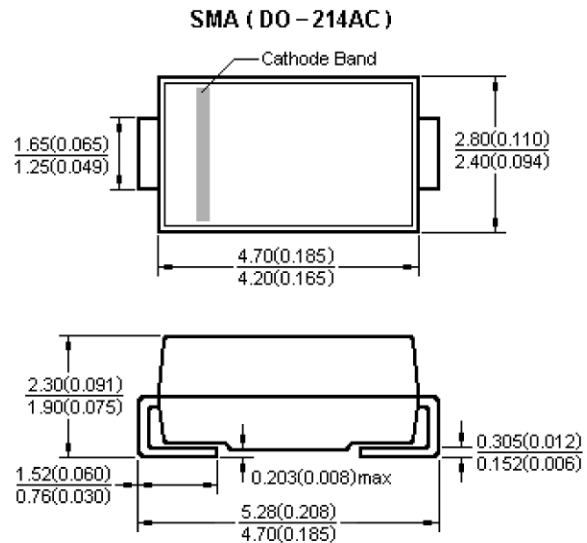
SMA (DO-214AC)

### Features

- Glass passivated chip junctions
- Ideal for automated placement
- Ultrafast reverse recovery time for high efficiency
- Low profile package
- High forward 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-214AC 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

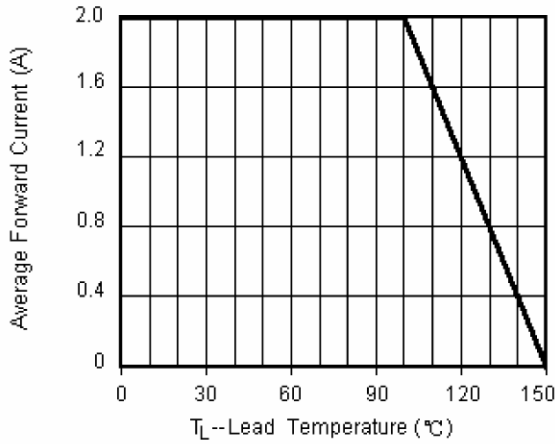
( $T_A = 25\text{ °C}$  unless otherwise noted)

	Symbol	ES2A /SMA	ES2B /SMA	ES2C /SMA	ES2D /SMA	ES2E /SMA	ES2G /SMA	ES2J /SMA	UNIT	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V	
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V	
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	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	
Maximum instantaneous forward voltage at 2.0A	$V_F$	0.95			1.25		1.70		V	
Maximum DC reverse current at Rated DC blocking voltage	$I_R$	$T_A = 25\text{ °C}$ 5.0				$T_A = 100\text{ °C}$ 100				$\mu\text{A}$
Maximum reverse recovery time at $I_F = 0.5\text{ A}$ , $I_R = 1.0\text{ A}$ , $t_{rr} = 0.25\text{ A}$	$t_{rr}$	35							nS	
Typical junction capacitance at 4.0 V, 1MHz	$C_J$	18							pF	
Typical thermal resistance(Note 1)	$R_{\theta JL}$	25							°C/W	
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							°C	

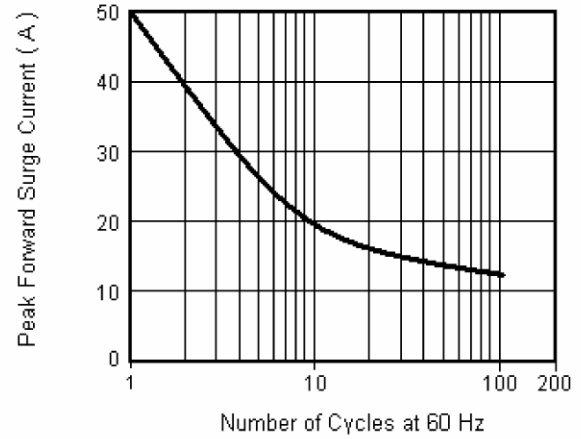
Note 1: Units mounted on P.C.B.5.0 \* 5.0 mm (0.013 mm thick) land areas

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

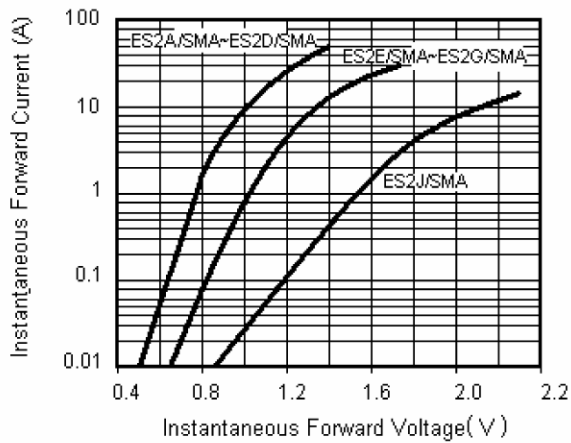
**Fig.1 Forward Current Derating Curve**



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



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Leakage Characteristics**

