

Major Ratings and Characteristics

$I_{F(AV)}$	2.0A
V_{RRM}	50 V to 1000 V
I_{FSM}	50 A
t_{rr}	50 nS , 75 nS
V_F	1.0 V , 1.3 V , 1.7 V
$T_j \text{ max.}$	150 °C



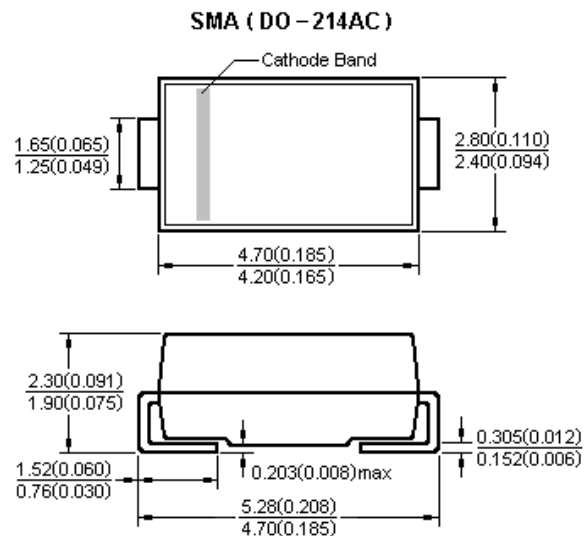
SMA (DO-214AC)

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junctions
- Ultrafast reverse recovery time
- Low switching losses, high efficiency
- 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 Data

- **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	(US2A)	(US2B)	(US2D)	(US2G)	(US2J)	(US2K)	(US2M)	UNIT
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	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 forwad voltage at 2.0A	V_F	1.0			1.3	1.7			V
Maximum DC reverse current at Rated DC blocking voltage	I_R	10.0							μA
$T_A = 25\text{ }^{\circ}\text{C}$ $T_A = 100^{\circ}\text{C}$		50							
Maximum reverse recovery time at I _F = 0.5 A , I _R = 1.0 A , I _{rr} = 0.25 A	t_{tr}	50				75			nS
Typical junction capacitance at 4.0 V ,1MHz	C_J	15							p F
Thermal resistance from junction to ambient	R_{θJA}	75							°C / W
Operating junction and storage temperature range	T_J, T_{STG}	−55 to +150							°C

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

Fig.1 Forward Current Derating Curve

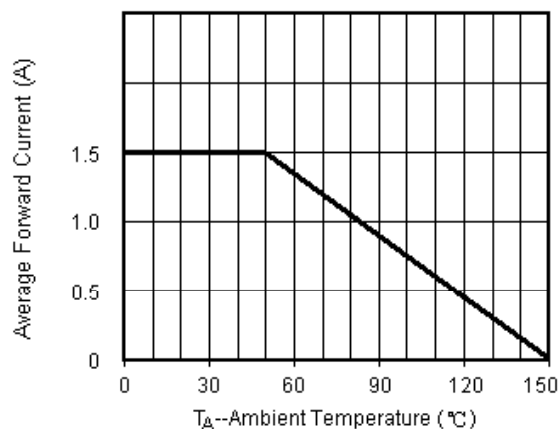


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

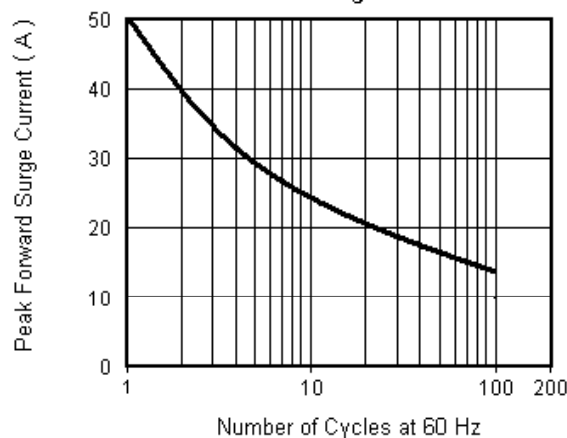


Fig.3 Typical Instantaneous Forward Characteristics

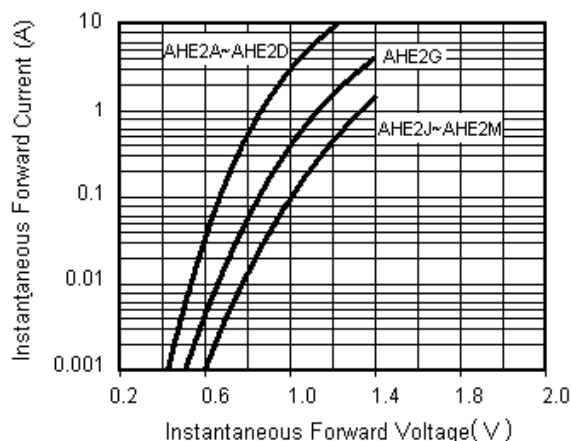


Fig.4 Typical Reverse Leakage Characteristics

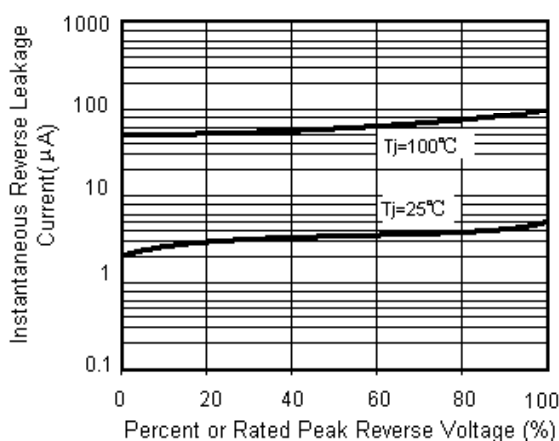


Fig.5 Typical Junction Capacitance

