

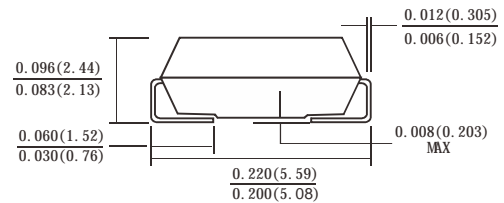
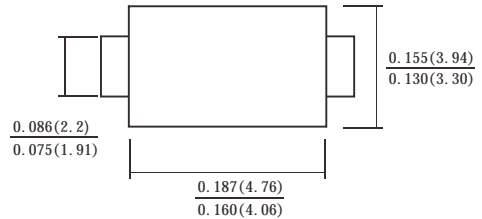


Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junctions
- Fast switching for 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



SMB(DO-214AA)



Dimensions in inches and (millimeters)

Mechanical Date

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

Maximum Ratings and Electrical Characteristics Rating at 25°C

ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	SYMBOL	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	Unit
Maximum Recurrent 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
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Forward Voltage @ $I_F = 2.0\text{A}$	V_{FM}	1.0			1.25		1.65		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	5.0							uA
At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$		100							
It Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10.37							A ² s
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35							ns
Typical Junction Capacitance (Note 2)	C_J	25							pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	20							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note: 1.Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C.

3. Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length .



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

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

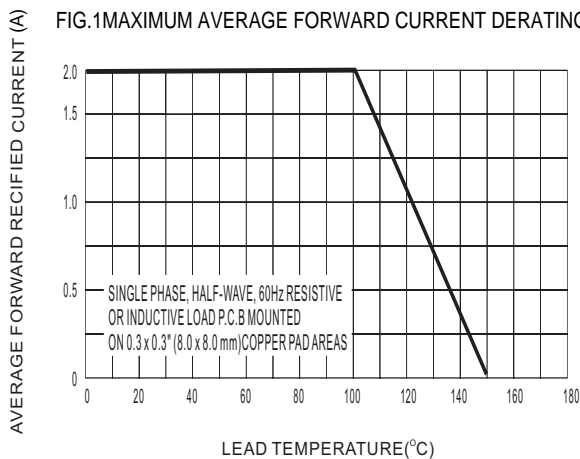


FIG.2 TYPICAL FORWARD CHARACTERISTICS

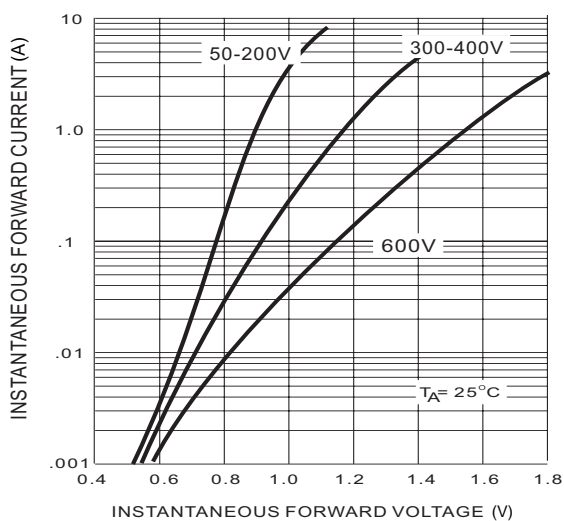


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

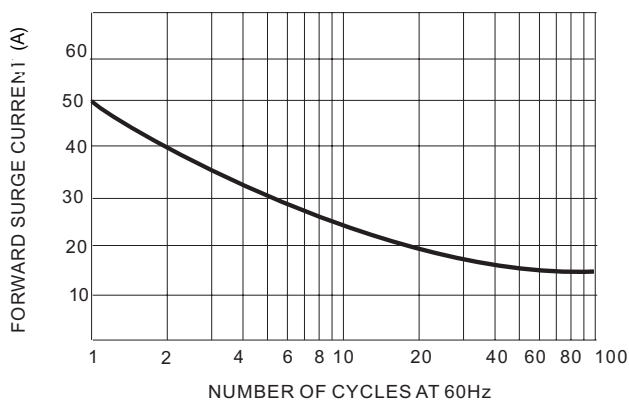


FIG.4 TYPICAL JUNCTION CAPACITANCE

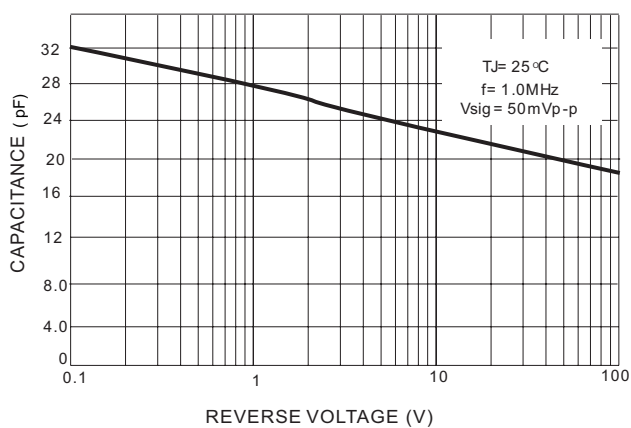


FIG.5 TYPICAL REVERSE CHARACTERISTICS

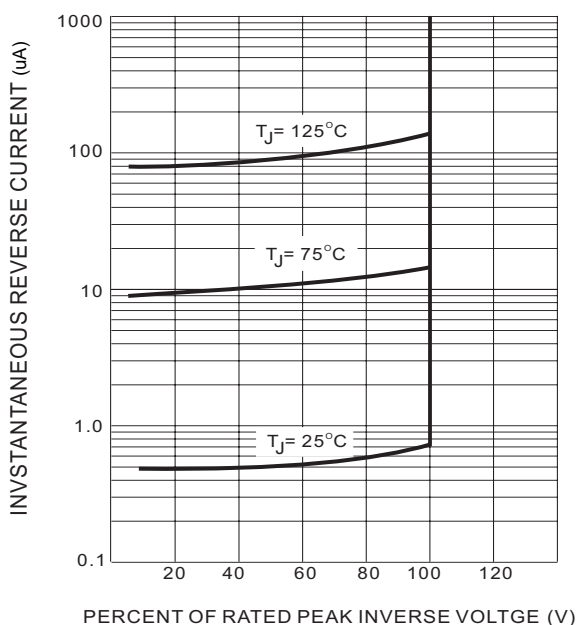


FIG.6 MOUNTING PAD LAYOUT

