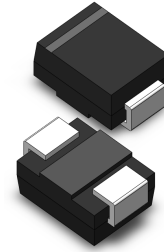


**VOLTAGE RANGE: 600V**  
**CURRENT: 3.0 A**

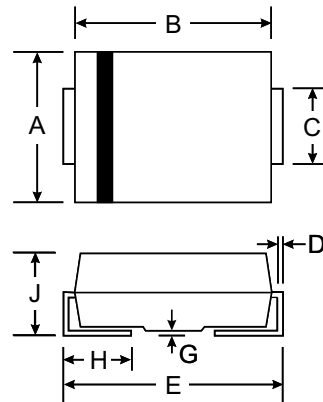
### Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Controlled avalanche characteristics
- Low leakage current
- High forward surge capability



### Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	AS3BJ	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	600	V
Maximum DC forward current (fig. 1)	I <sub>F</sub> <sup>(1)</sup>	3.0	A
	I <sub>F</sub> <sup>(2)</sup>	2.0	
Peak forward surge current 10 ms single half sine-wave, non-repetitive, T <sub>J</sub> = 25 °C	I <sub>FSM</sub>	90	A
Non-repetitive avalanche energy at T <sub>J</sub> = 25 °C	E <sub>AS</sub>	I <sub>AS</sub> = 2.0 A max.	20
		I <sub>AS</sub> = 1.0 A typ.	30
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 175	°C

#### Notes

- (1) Mounted on 14 mm x 14 mm x 2 areas, 1 oz. FR4 PCB  
(2) Free air, mounted on recommended 1.52 mm x 2.18 mm x 2 pad areas

### RATINGS AND CHARACTERISTICS CURVES ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

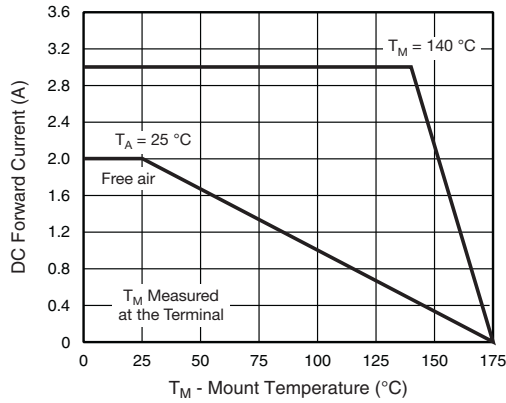


Fig. 1 - Maximum Forward Current Derating Curve

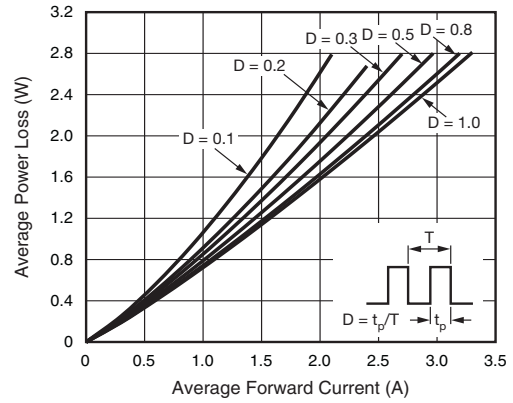


Fig. 2 - Forward Power Loss Characteristics

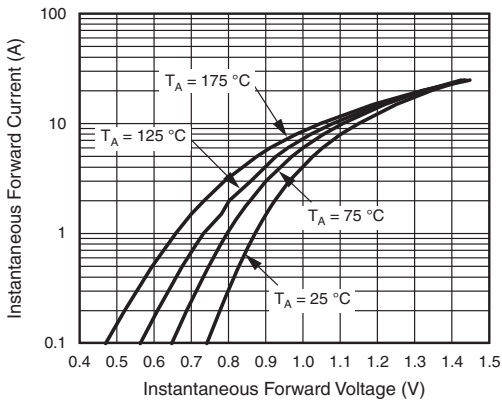


Fig. 3 - Typical Instantaneous Forward Characteristics

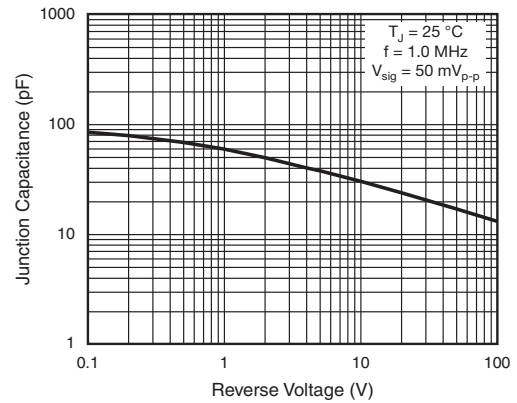


Fig. 5 - Typical Junction Capacitance

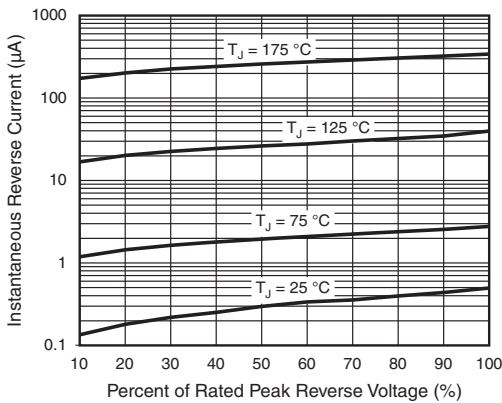


Fig. 4 - Typical Reverse Characteristics

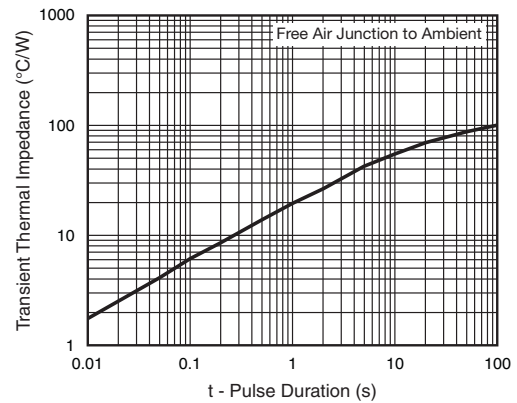


Fig. 6 - Typical Transient Thermal Impedance