

SURFACE MOUNT GENERAL PURPOSE RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Ampere

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

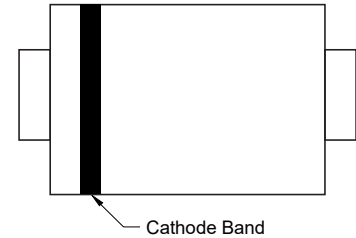
Mechanical Data

Case : DO-214AA/SMB molded plastic body

Terminals :Solderable per MIL-STD-750,Method2026

Approx. Weight : 0.09grams / 0.003oz

DO-214AA/SMB 



Equivalent circuit



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, apacitive load,derate by 20 %

Parameter	Symbols	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	Units
		S3A	S3B	S3D	S3G	S3J	S3K	S3M	
Marking Code		S3A	S3B	S3D	S3G	S3J	S3K	S3M	
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)}	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	90							A
Maximum Instantaneous Forward Voltage at 3.0 A	V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	5							μA
Ta = 25 °C		100							
Typical Junction Capacitance ^(note1)	C _j	35							pF
Typical Thermal Resistance ^(note2)	R _{θJA}	48							°C/W
	R _{θJC}	16							
Operating Junction and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							°C

Note: 1.Measured at 1 MHz and applied reverse voltage of4 V D.C

2.P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

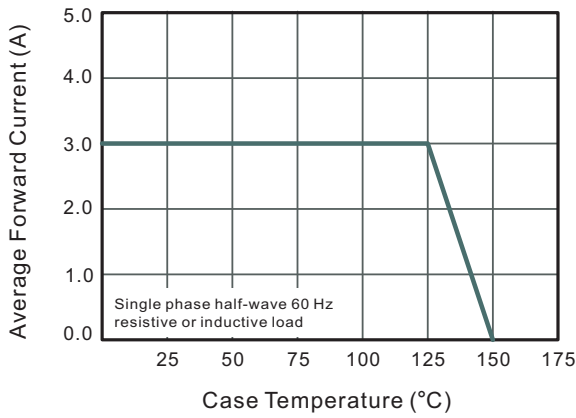


Fig.2 Typical Instantaneous Reverse Characteristics

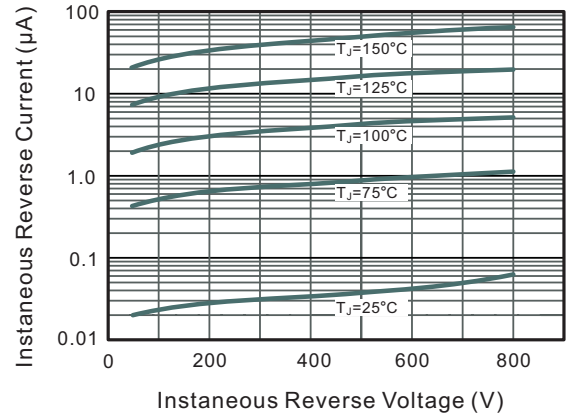


Fig.3 Typical Forward Characteristic

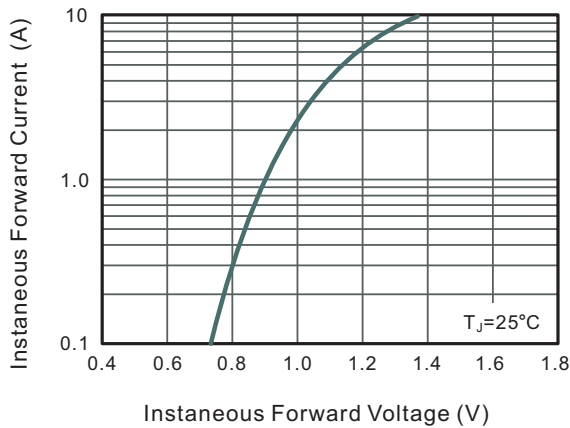


Fig.4 Typical Junction Capacitance

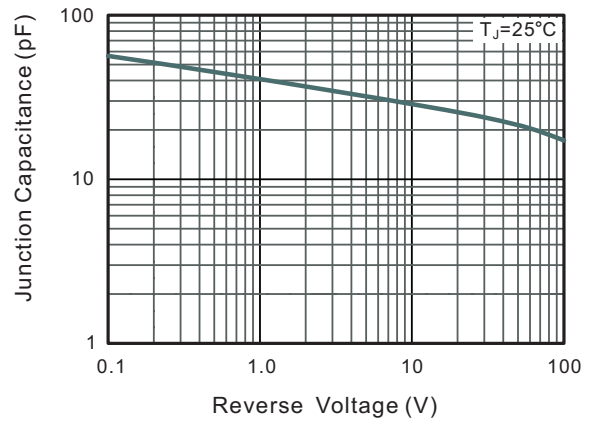
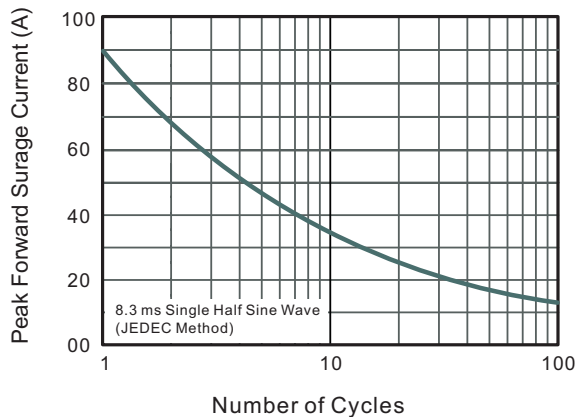
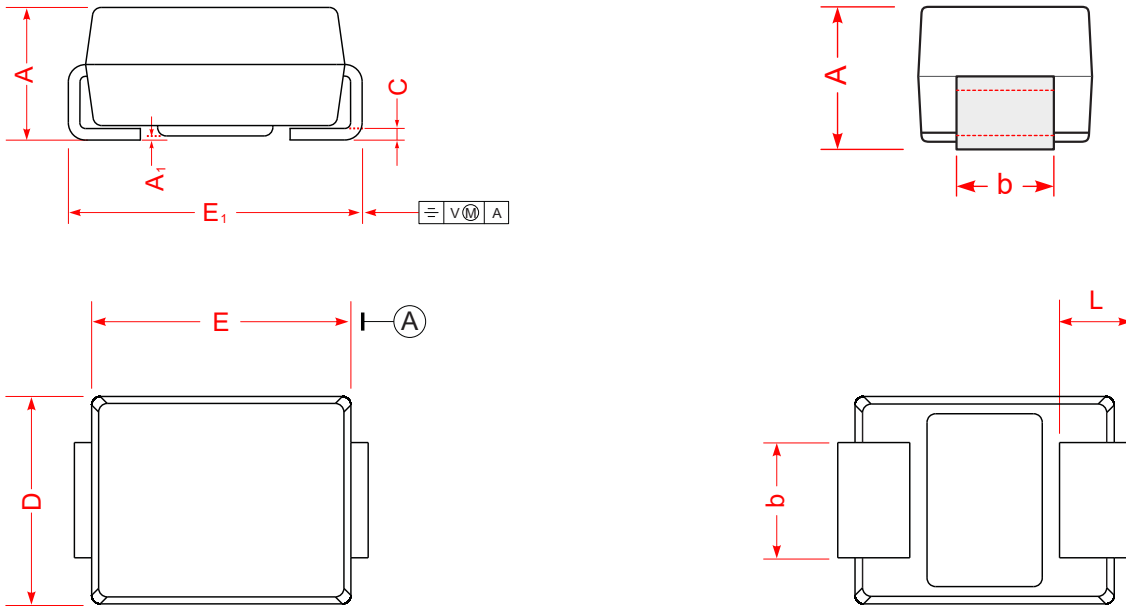


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

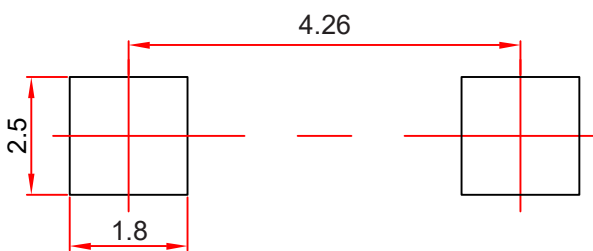


DO-214AA/SMB Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.13	2.44	0.084	0.096
C	0.15	0.31	0.006	0.012
D	3.30	3.95	0.130	0.156
E	4.06	4.70	0.160	0.185
E ₁	5.08	5.59	0.200	0.220
b	1.90	2.20	0.075	0.087
L	0.80	1.50	0.031	0.059
A ₁	0.2 REF		0.008 REF	

Suggested Pad Layout



- Note:
1. Controlling dimension: in/millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.