

Surface Mount General Purpose Silicon Rectifiers Reverse

S3JB

SMB



Cathode  **Anode**

Marking: S3J

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

- Package: SMB
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbols	S3JB	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	V
Maximum RMS voltage	V _{RMS}	420	V
Maximum DC Blocking Voltage	V _{DC}	600	V
Maximum Average Forward Rectified Current	I _(AV)	3.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	160	A
I ² t rating for fusing (1ms < t < 8.3ms)	I ² t	106.2	A ² S
Maximum Forward Voltage at 3.0A and 25°C	V _F	1.0	V
Maximum DC Reverse Current @T _A =25 °C at Rated DC Blocking Voltage @T _A =125 °C	I _R	10 200	μA
Typical Junction Capacitance (Note1)	C _j	10	pF
Operating and Storage Temperature Range	T _j , T _{stg}	-50 ~ +150	°C
Typical Thermal Resistance(2)	R _{θJA}	60	°C/W
	R _{θJC}	16	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Valid provided that electrodes are kept at ambient temperature.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig.1-Forward Current Derating Curve

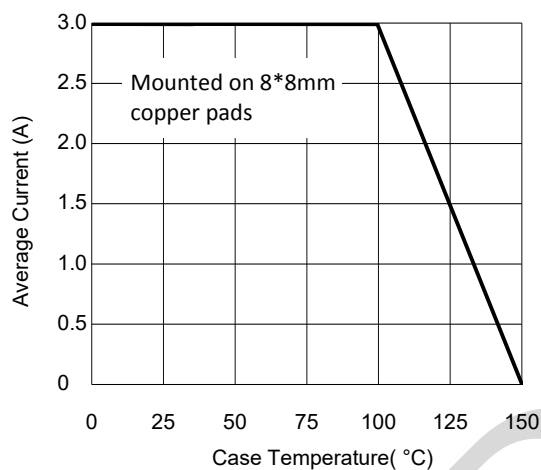


Fig.2- Surge Current Derating Curve

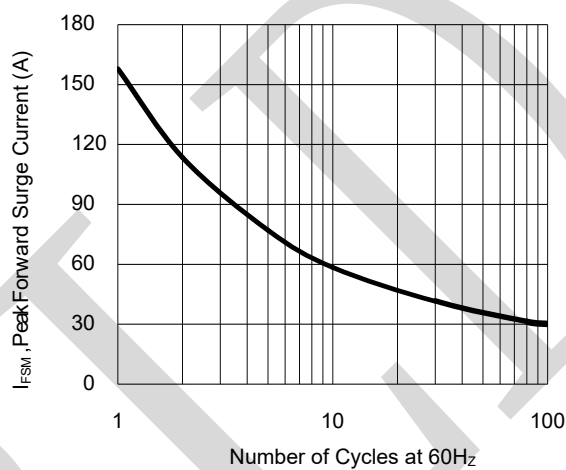


Fig.3- Typical Forward Voltage Characteristic

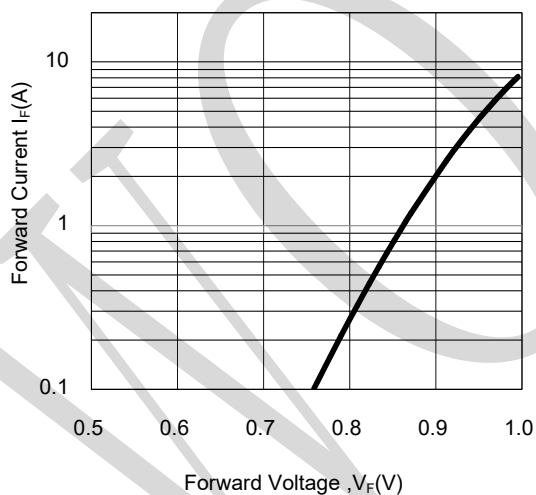
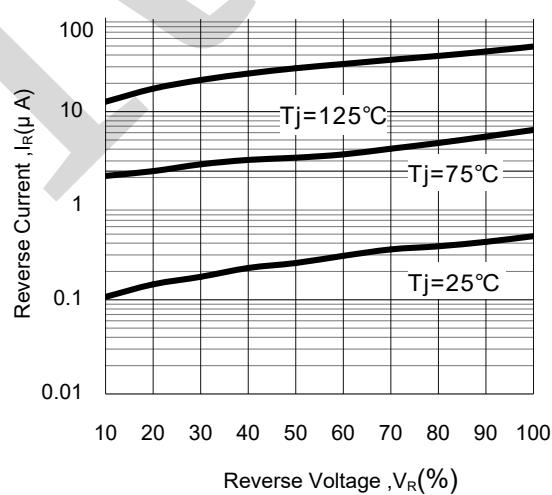
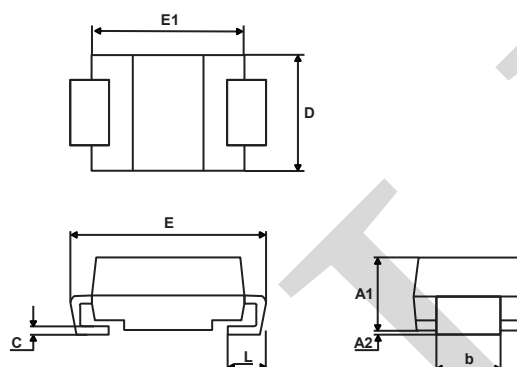


Fig.4- Typical Reverse Characteristic



PACKAGE OUTLINE DIMENSIONS

SMB dimension definitions



SMB dimension values

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A1	1.90	2.45	0.075	0.096
A2	0.05	0.20	0.002	0.008
b	1.95	2.20	0.077	0.087
c	0.15	0.40	0.006	0.016
D	3.30	3.95	0.130	0.156
E	5.10	5.60	0.201	0.220
E1	4.05	4.60	0.159	0.181
L	0.75	1.50	0.030	0.059