RS3AB THRU RS3MB

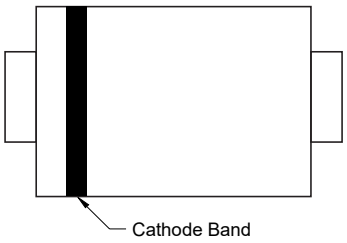
SURFACE MOUNT FAST RECOVERY RECTIFIERS

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
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

DO-214AA/SMB RoHS COMPLIANT



Mechanical Data

Case : DO-214AA/SMB molded plastic body

Terminals :Solderable per MIL-STD-750,Method2026

Approx. Weight : 0.09grams / 0.003oz

Equivalent circuit

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load,For capacitive load, derate current by 20%.

Parameter	Symbols	RS3AB	RS3BB	RS3DB	RS3GB	RS3JB	RS3KB	RS3MB	Units
Marking Code		RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	
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	1.3							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta =125 °C	I_R	5 100							μA
Maximum Reverse Recovery Time （note1）	trr	150				250	500		ns
Typical Junction Capacitance at V_R=4V,f=1MHz	C_j	40							pF
Typical Thermal Resistance （note2）	$R_{\theta JA}$ $R_{\theta JC}$	48 16							°C/W
Operating Junction and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							°C

Note: 1.Measured with I_F = 0.5 A, I_R = 1 A, Irr = 0.25 A.

2.P.C.B. mounted with 2.0 X 2.0" (5.0 X 5.0 cm) copper pad areas.

Typical Characteristics

Fig.1 Maximum Average Forward Current Rating

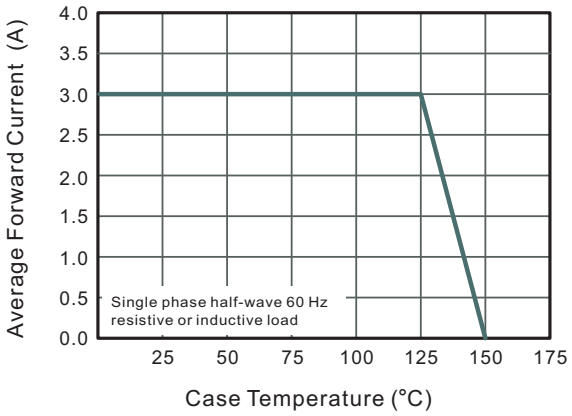


Fig.2 Typical Reverse Characteristics

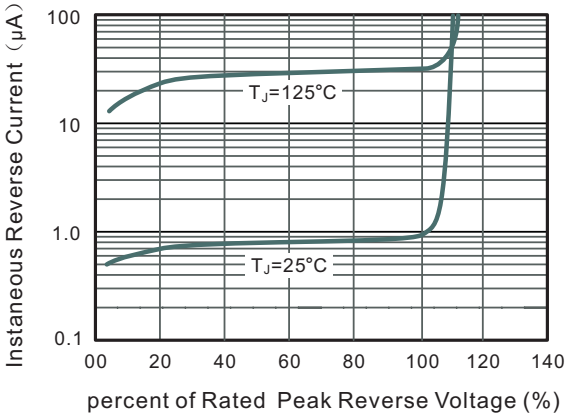


Fig.3 Typical Instaneous Forward Characteristics

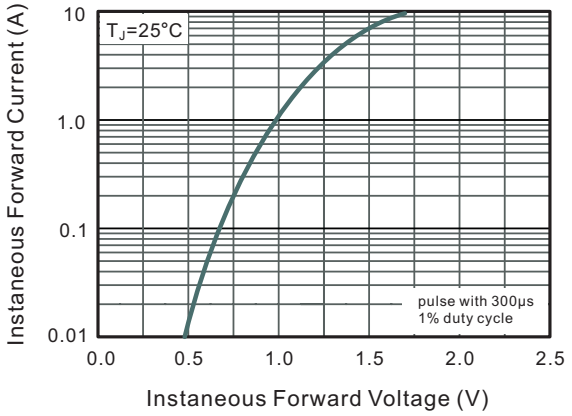


Fig.4 Typical Junction Capacitance

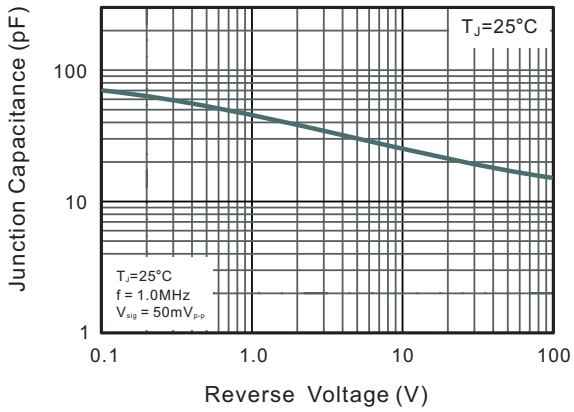
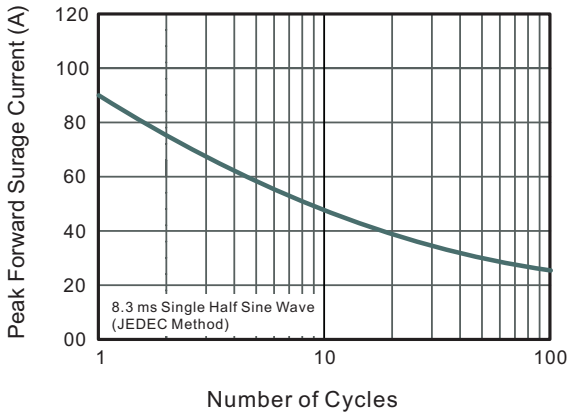
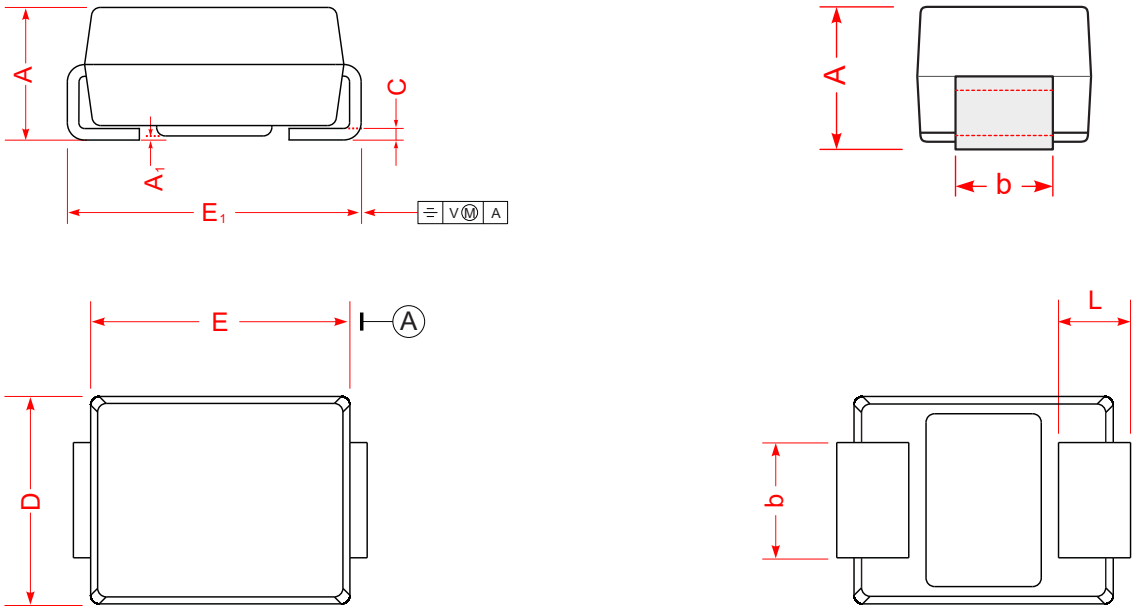


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

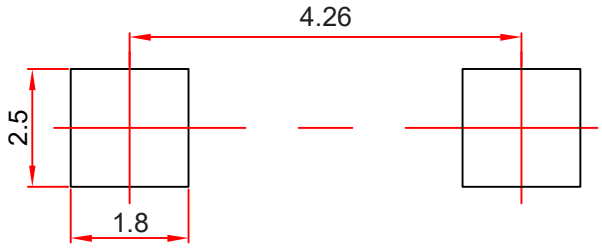


DO-214AA/SMB Package Outline Dimensions



Symbol	imensions In Millimeters		imensions 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: ±0.05mm.
3. The pad layout is for reference purposes only.