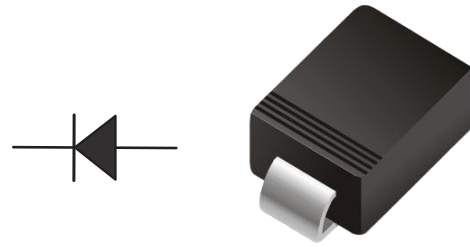


Surface Mount Fast Recovery Rectifiers

Parameter	Value	Unit
V_{RRM}	50~1000	V
$I_{F(AV)}$	3.0	A



DO-214AA/SMB

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time

Applications

- For use in fast-switching rectification in power supplies, inverters, converters, and as free-wheeling diodes in consumer and telecommunications equipment.

Absolute Maximum Ratings and Characteristics (at $T_J = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	RS3AB	RS3BB	RS3DB	RS3GB	RS3JB	RS3KB	RS3MB	Units
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	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	90							A
Maximum Forward Voltage at 3A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 100							μA
Typical Junction Capacitance at $V_R=4\text{V}$, $f=1\text{MHz}$	C_j	40							pF
Maximum Reverse Recovery Time (1)	t_{rr}	150				250	500		ns
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$	48 16							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

Notes:

- (1) Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.
- (2) P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.

Typical characteristics

Fig.1 Maximum Average Forward Current Rating

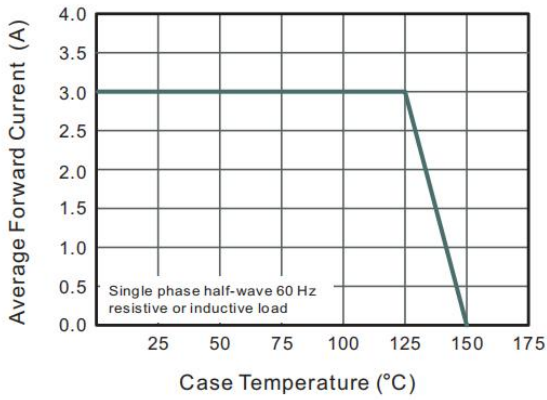


Fig.2 Typical Reverse Characteristics

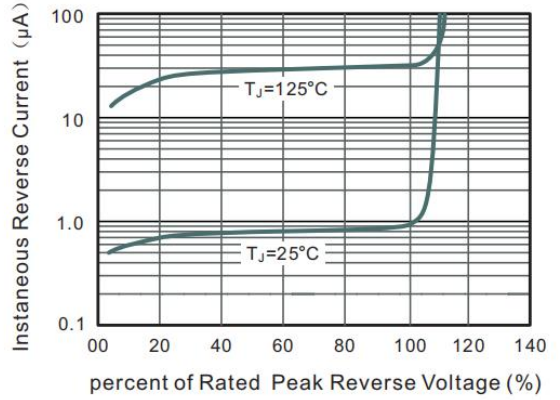


Fig.3 Typical Instantaneous Forward Characteristics

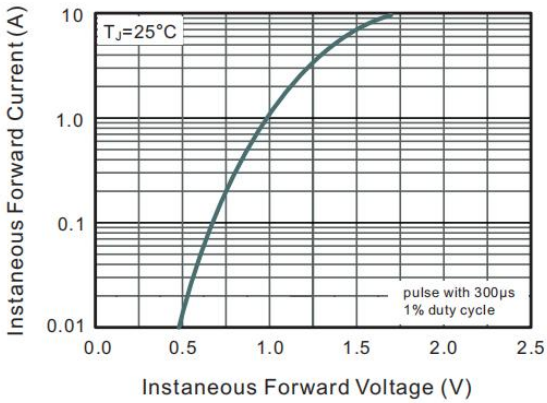


Fig.4 Typical Junction Capacitance

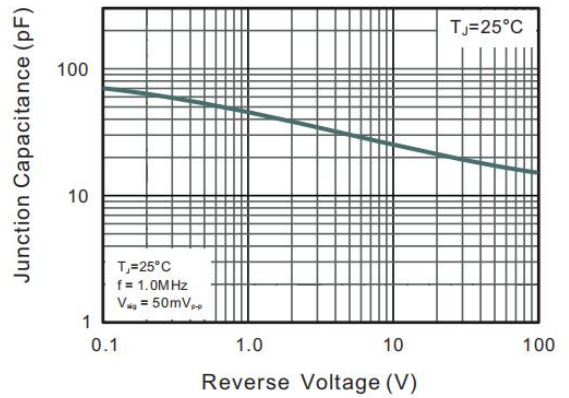
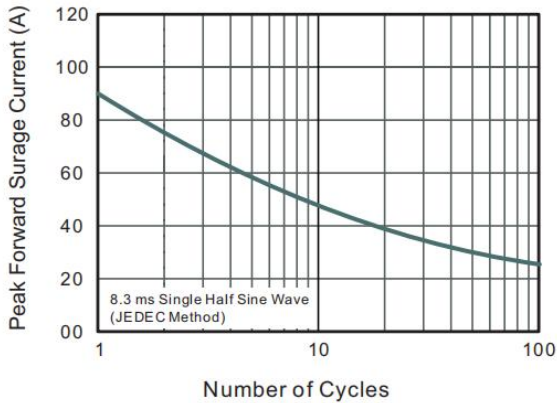


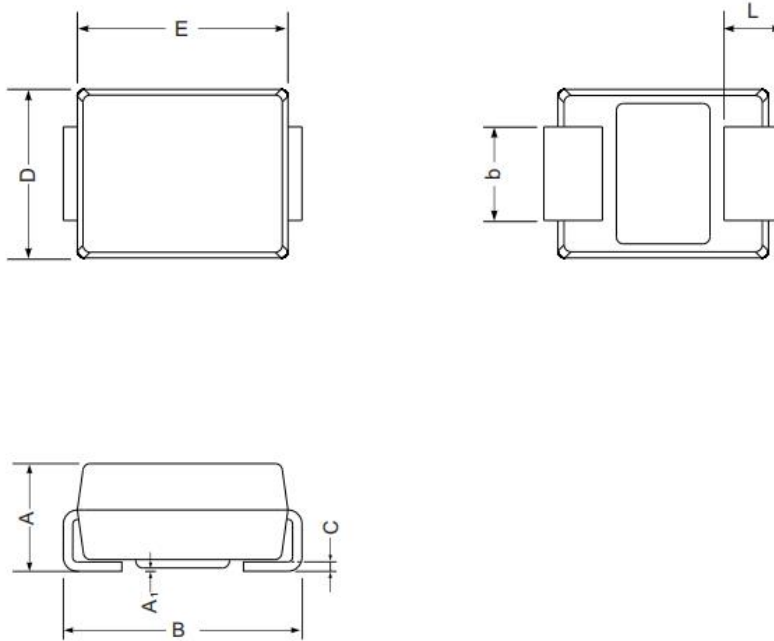
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package outlines

Plastic surface mounted package; 2 leads

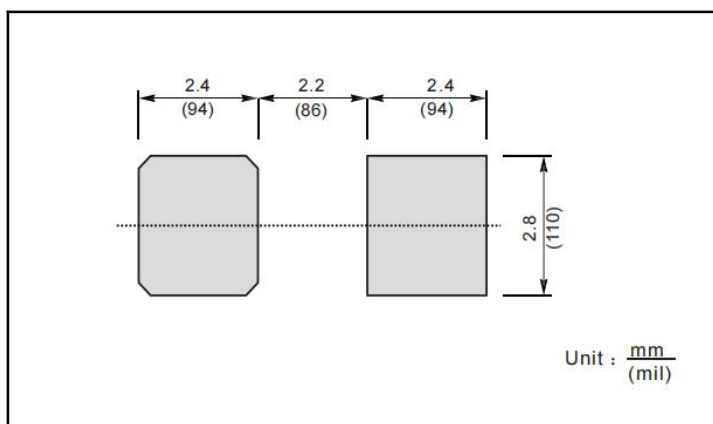
DO-214AA/SMB



SMB mechanical data

UNIT		A	E	D	B	A ₁	L	C	b
mm	max	2.5	4.70	3.94	5.5	0.20	1.5	0.305	2.2
	min	2.1	4.06	3.3	5.0	0.05	0.8	0.152	1.9
mil	max	98	185	155	216	7.9	59	12	87
	min	82	160	130	196	2.0	32	6	75

The recommended mounting pad size



Marking

Type number	Marking code
RS3AB	RS3A
RS3BB	RS3B
RS3DB	RS3D
RS3GB	RS3G
RS3JB	RS3J
RS3KB	RS3K
RS3MB	RS3M

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