

Descriptions

Surface Mount Superfast Recovery Rectifiers, Reverse Voltage: - 50 to 1000 V, Forward Current: -3A, SAMF thin package.

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

Applications

- Case: SMB
- Terminals: Solderable per MIL-STD-750 , Method 2026
- Approx. Weight: 0.098g / 0.003oz

Equivalent Circuit & Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

Top View

Code: RS3A~ RS3 M Simplified outline SMB symbol

Absolute Maximum Ratings(Ta=25°C)

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

Parameter	Symbols	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 Current	I _{F(AV)}	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	90							A
Maximum Forward Voltage at 3 A	V _F	1.3							V
Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a = 125 °C	I _R	5 100							μA
Typical Junction Capacitance at V _R =4V, f= 1 MHz	C _j	40							pF
Maximum Reverse Recovery Time ^(1)	t _{rr}	150				250	500		ns
Typical Thermal Resistance ^(2)	R _{θJA} R _{θJC}	48 16							°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							°C

(1) Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$.

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

Electrical Characteristic Curve

Fig.1 Maximum Average Forward Current Rating

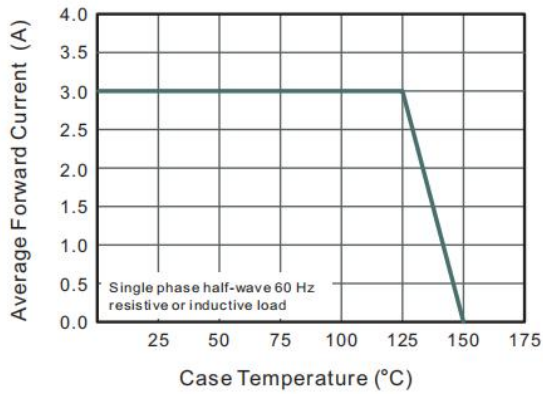


Fig.2 Typical Reverse Characteristics

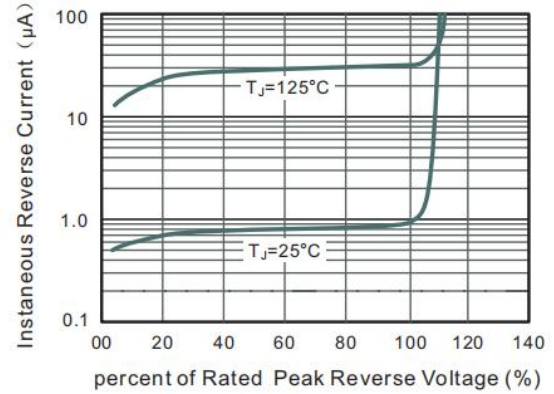


Fig.3 Typical Instantaneous Forward Characteristics

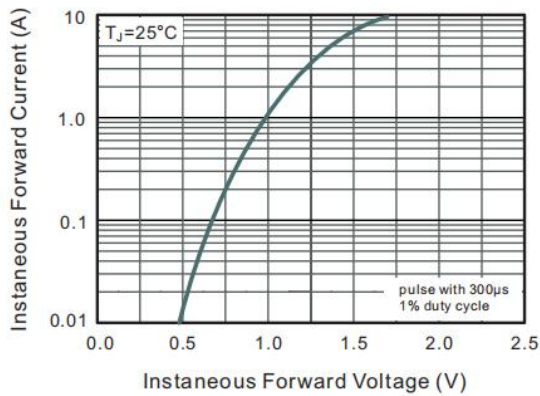


Fig.4 Typical Junction Capacitance

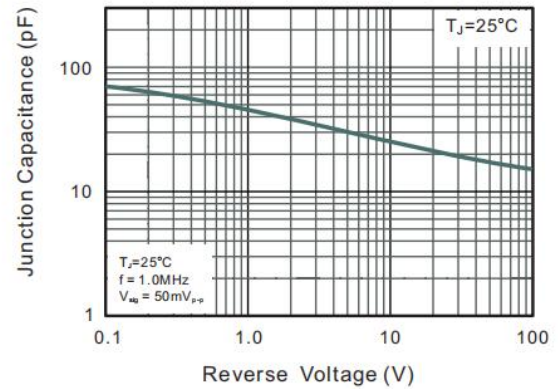
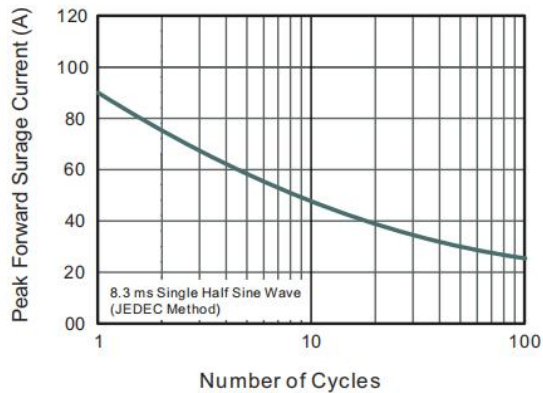


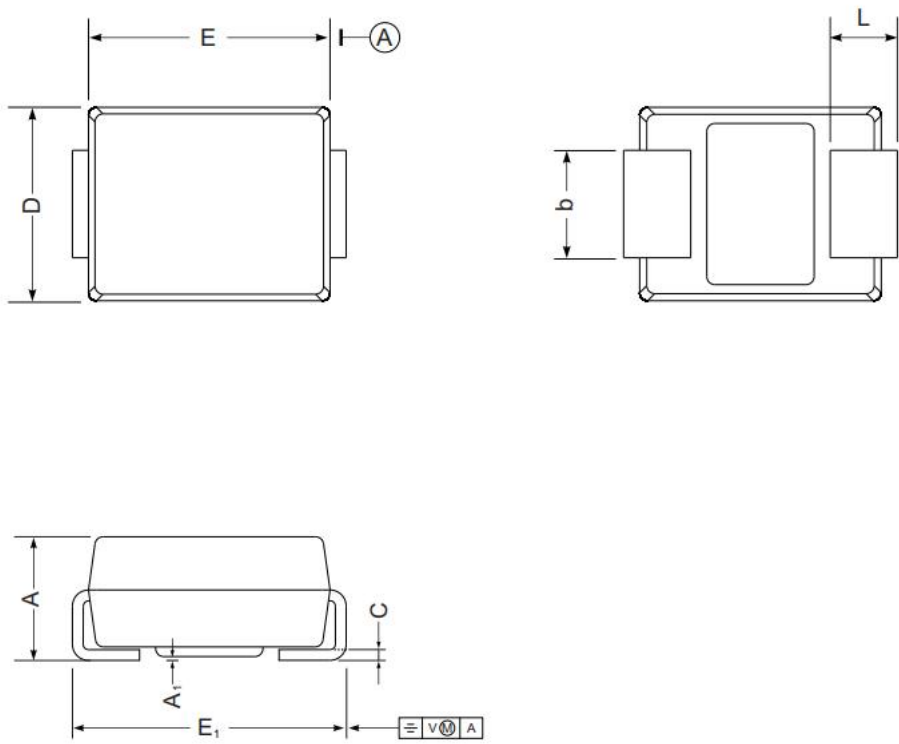
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



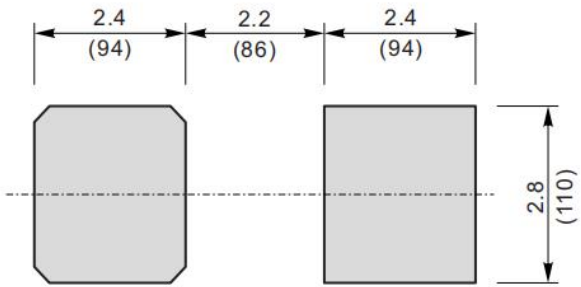
Marking

Type number	Marking code
RS3AB	RS3A
RS3 BB	RS3 B
RS3 DB	RS3 D
RS3GB	RS3G
RS3JB	RS3J
RS3 KB	RS3 K
RS3 MB	RS3 M

Package Outline Dimensions



UNIT		A	E	D	E	A	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75



Unit : $\frac{\text{mm}}{(\text{mil})}$