

Surface Mount Fast Recovery Rectifiers

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

MECHANICAL DATA

- Case: SMB



Top View
 Marking Code:RS3M
 Simplified outline SMB symbol

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Absolute Maximum Ratings and Characteristics

Parameter	Symbols	RS3MB	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	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 at Rated DC Blocking Voltage	I_R	5	μA
$T_a = 25\text{ }^\circ C$		100	
Typical Junction Capacitance at $V_R=4V$, $f=1MHz$	C_j	40	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	500	ns
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	48	$^\circ C/W$
	$R_{\theta JC}$	16	
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ C$

(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.

Fig.1 Maximum Average Forward Current Rating

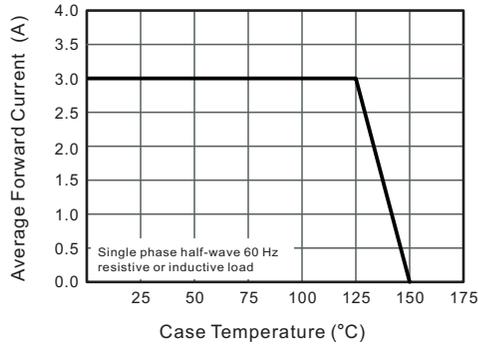


Fig.2 Typical Reverse Characteristics

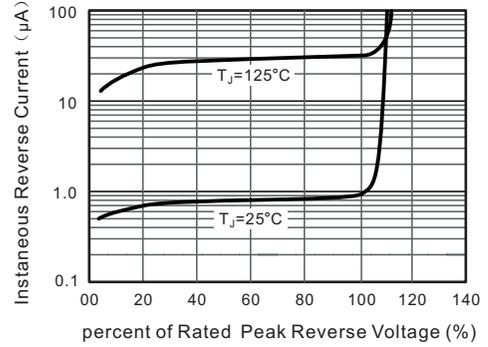


Fig.3 Typical Instantaneous Forward Characteristics

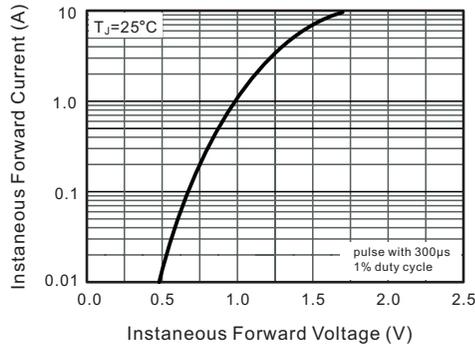


Fig.4 Typical Junction Capacitance

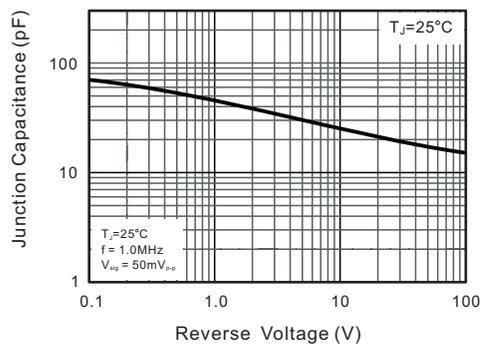
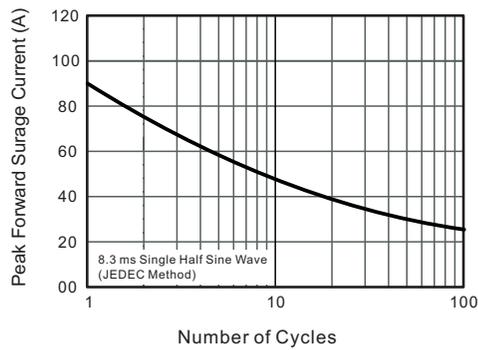


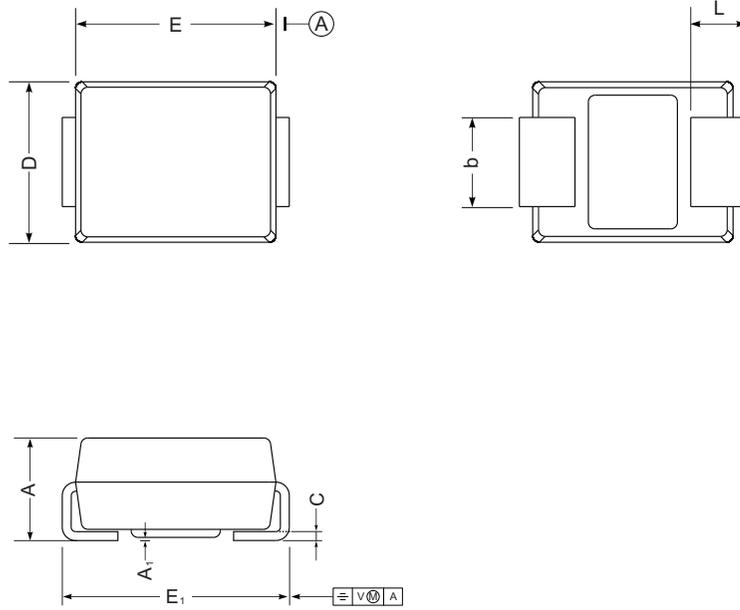
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

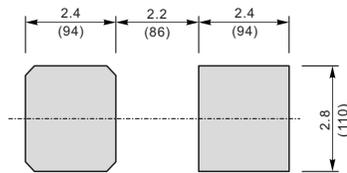
SMB



SMB mechanical data

UNIT		A	E	D	E ₁	A ₁	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

The recommended mounting pad size



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