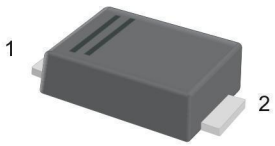
RS3AF–TN~RS3MF–TN
Surface Mount Fast Recovery Rectifiers

Features

- For surface mount applications
- Glass passivated chip junction
- Fast reverse recovery time

SMAF



1.Cathode — 2.Anode

Marking Code:
RS3AF–TN:RS3A
RS3BF–TN:RS3B
RS3DF–TN:RS3D
RS3GF–TN: RS3G
RS3JF–TN: RS3J
RS3KF–TN: RS3K
RS3MF–TN: RS3M

Maximum Ratings and Electrical Characteristics

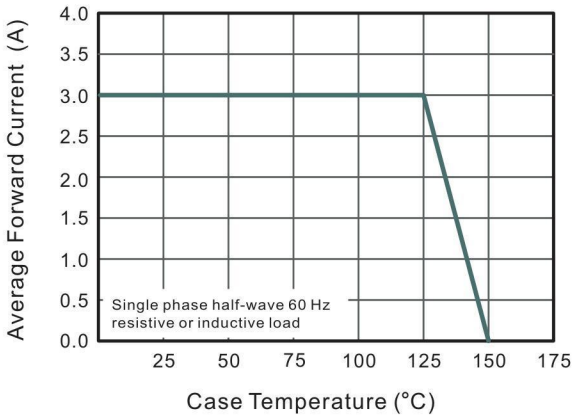
Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

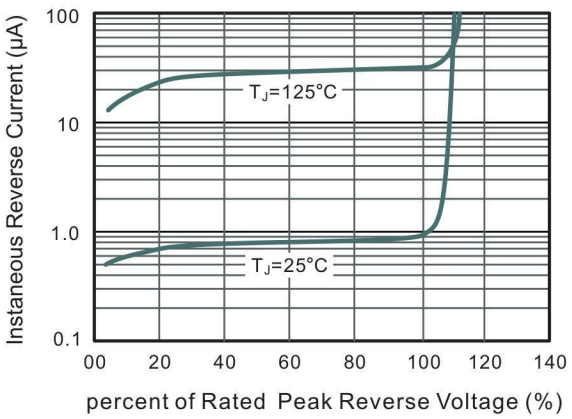
Parameter	Symbols	RS3AF–TN	RS3BF–TN	RS3DF–TN	RS3GF–TN	RS3JF–TN	RS3KF–TN	RS3MF–TN	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_C =125 °C	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	80							A
Maximum Instantaneous Forward Voltage at 3 A	V_F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25 °C T_A = 125 °C	I_R	5 100							μA
Typical Junction Capacitance Note1	C_j	32							pF
Typical Thermal Resistance Note2	$R_{\theta JA}$ $R_{\theta JC}$	50 16							°C/W
Maximum Reverse Recovery Time Note3	T_{rr}	150				250	500		nS
Junction Temperature	T_J	150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

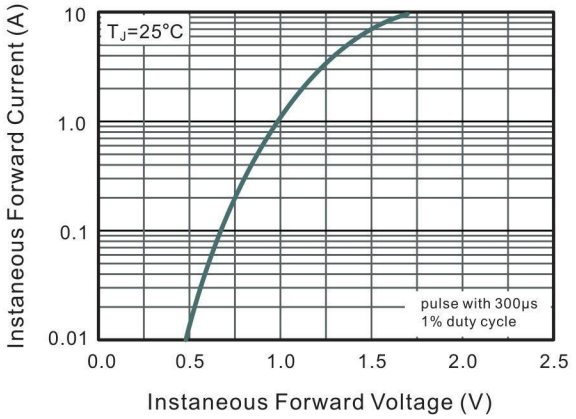
Note:

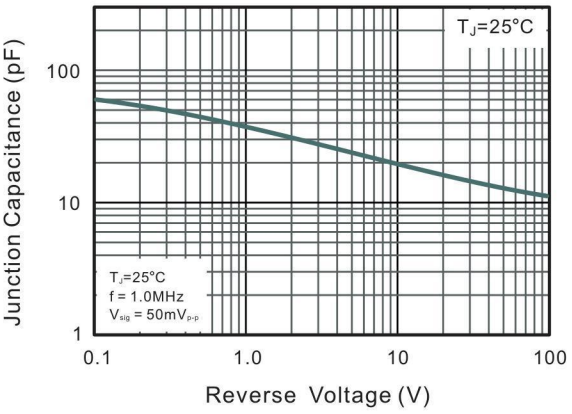
1. Measured at 1 MHz and applied reverse voltage of 4 V D.C
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.
3. Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A

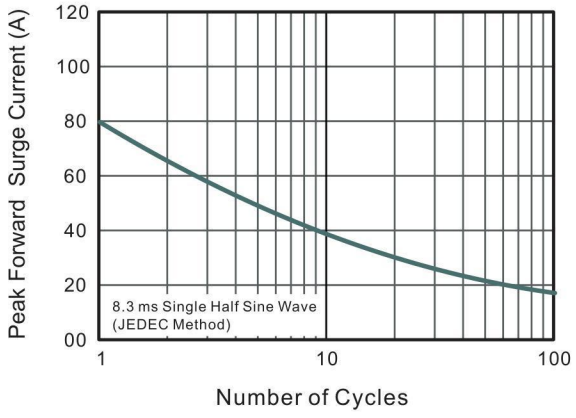
Typical Characteristic Curves







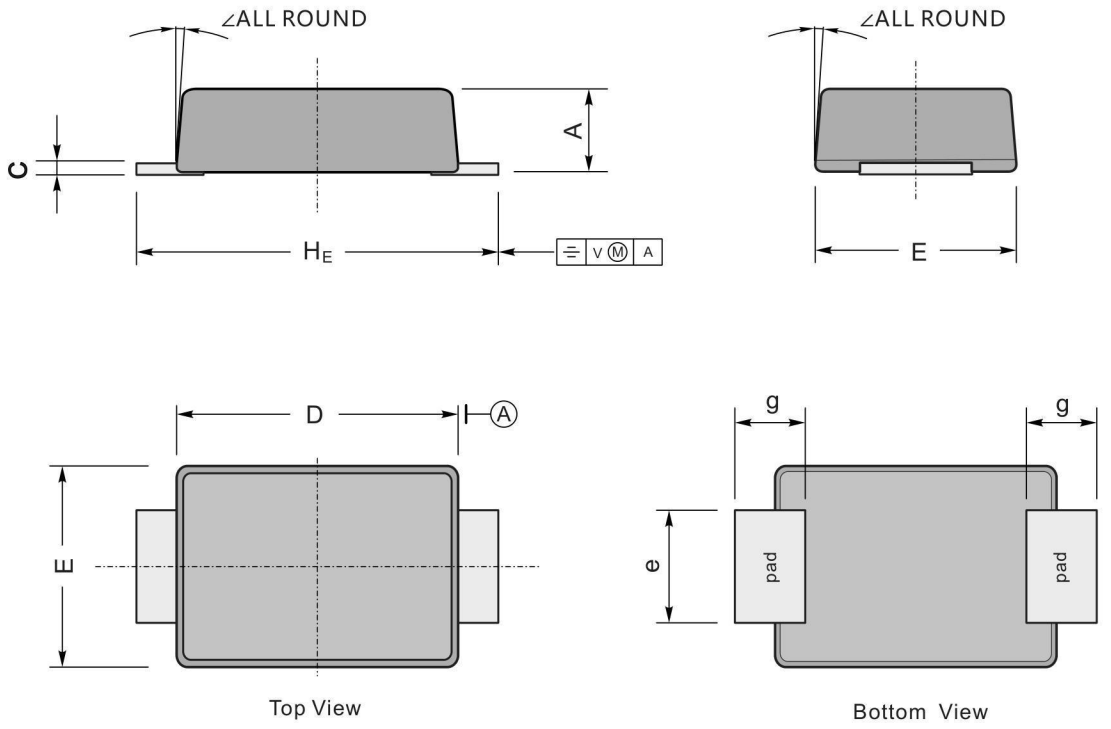




Package Outline

SMAF

Dimensions in mm



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	