

RS3AAF THRU RS3MAF 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
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: JEDEC SMAF molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.038 grams
- Mounting Position: Any

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Type Number	Symbol	RS3A AF	RS3B AF	RS3D AF	RS3G AF	RS3J AF	RS3K AF	RS3M AF	Units
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V _{RWM}								
DC Blocking Voltage	V _{DC}								
RMS Reverse Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Average forward rectified output current @T _L = 100°C	I _O	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	90							A
Forward Voltage @I _F = 3.0A	V _F	1.3							V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}	5.0 150							μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	160							ns
Typical Junction Capacitance (Note 2)	C _J	60							pF
Typical Thermal Resistance (Note 3)	R _{θJA}	60							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150							°C

Note: 1. Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A
 2. Measured at 1MHz and applied reverse voltage of 4V D.C
 3. P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

Ratings and Characteristics Curves

Fig.1 Forward Current Derating Curve

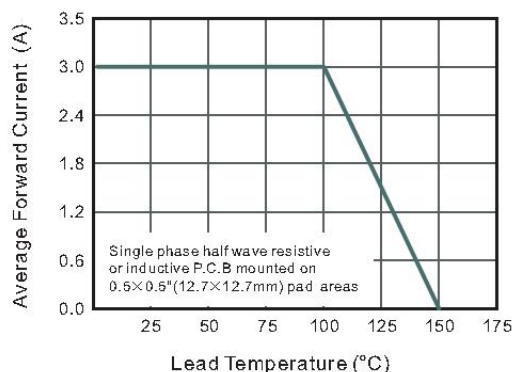


Fig.2 Typical Reverse Characteristics

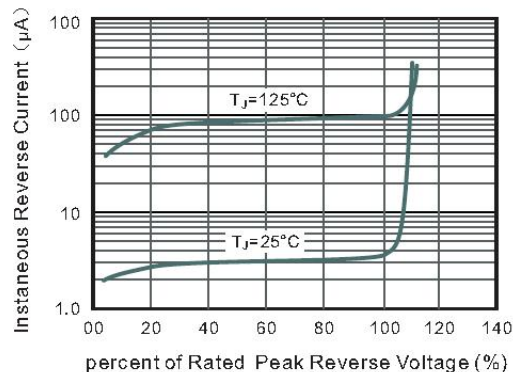


Fig.3 Typical Instantaneous Forward Characteristics

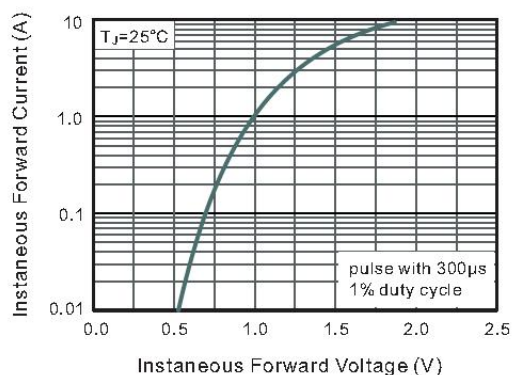


Fig.4 Typical Junction Capacitance

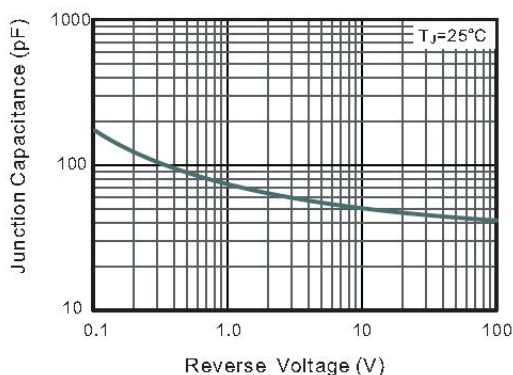
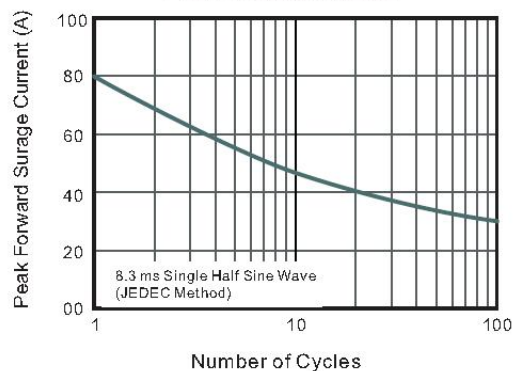
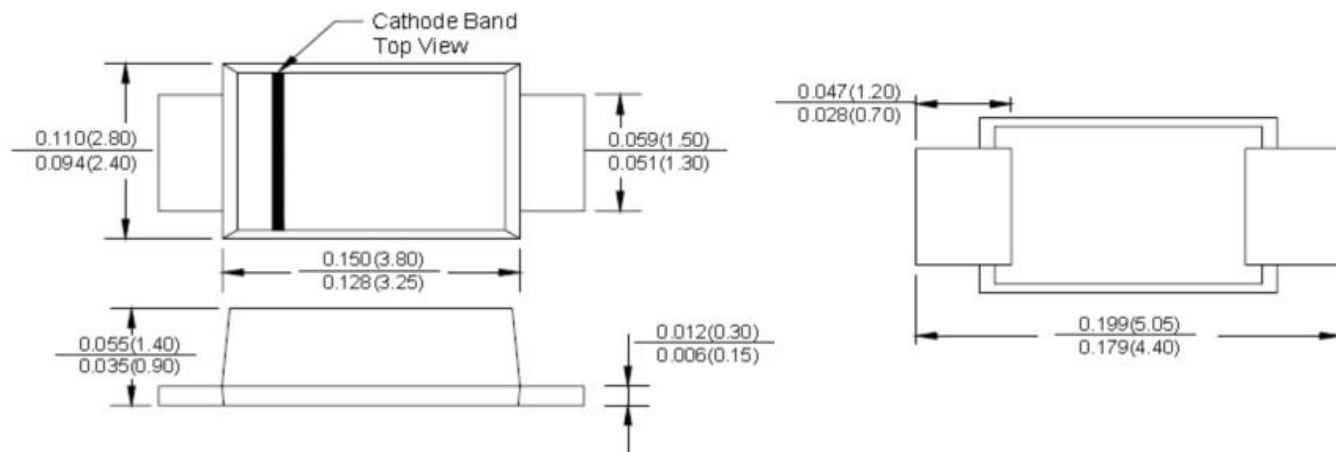


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Mechanical Dimensions SMAF (Millimeters/Inches)

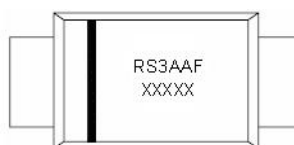


Ordering Information

Device	Package	Shipping
RS3AAF THRU RS3MAF	SMAF (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

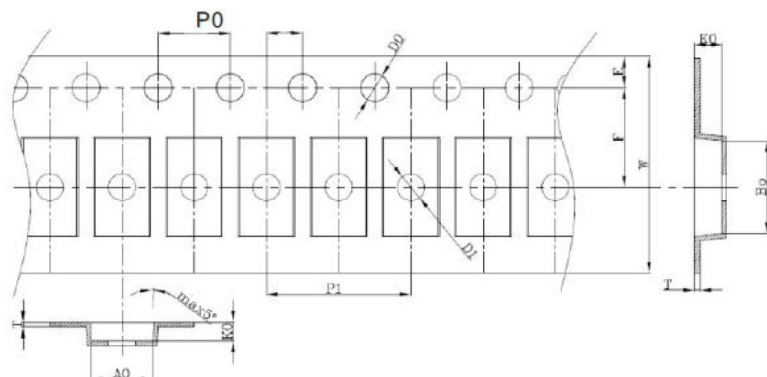
Marking Diagram



Where XXXXX is YYWWL

RS3AAF = Part Name
YY = Year
WW = Week
L = Lot Number

Carrier Tape Specification SMAF



SYMBOL	Millimeters	
	Min.	Max.
A0	2.83	3.03
B0	2.23	5.43
K0	1.23	1.43
P0	3.90	4.10
P1	3.90	4.10
P2	1.90	2.10
T	0.17	0.23
E	1.63	1.83
F	5.45	5.65
D0	1.50	1.60
D1	1.45	1.55
W	11.70	12.30



**RS3AAF
THRU
RS3MAF**

**Technical Data
Data Sheet N1670, Rev. B**



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