



RS1AF SERIES

SURFACE MOUNT FAST RECOVERY RECTIFIER

VOLTAGE 50-600 Volts **CURRENT** 1 Ampere

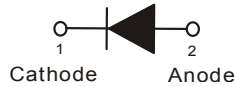
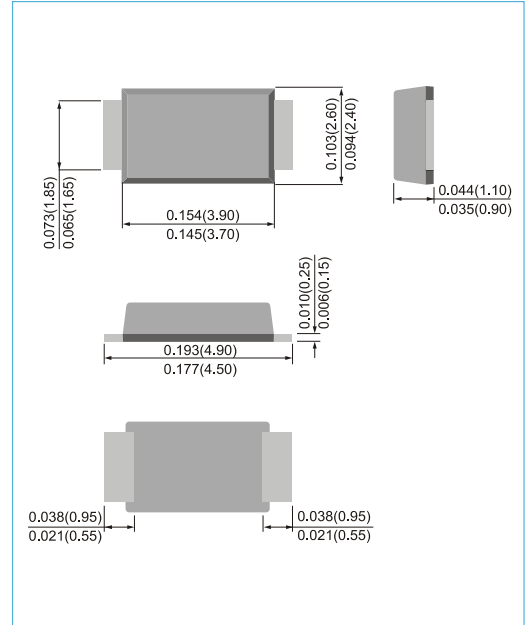
SMAF Unit : inch(mm)

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass Passivated Junction
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SMAF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight: 0.0011 ounces, 0.0328 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	RS1AF	RS1BF	RS1DF	RS1GF	RS1JF	UNITS	
Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	V	
RMS Voltage	V _{RMS}	35	70	140	280	420	V	
DC Blocking Voltage	V _R	50	100	200	400	600	V	
Average Forward Current	I _{F(AV)}	1						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	30						A
Forward Voltage at 1.0A	V _F	1.3						V
DC Reverse Current at Rated DC Blocking Voltage	I _R	1						μA
Typical Junction capacitance	C _J	15				7		pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2)	R _{θJL} R _{θJA}	31 150						°C / W
Reverse Recovery Time (I _F =0.5A, I _R =1.0A, I _{rr} =0.25A)	T _{rr}	150				250		ns
Operating Junction Temperature and Storage Temperature Range	T _J , T _{STG}	-55 to +150						°C

NOTES : 1. Mounted on an FR4 PCB, single-sided copper, with 48cm² copper pad area
2. Mounted on an FR4 PCB, single-sided copper, mini pad.



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RATING AND CHARACTERISTIC CURVES

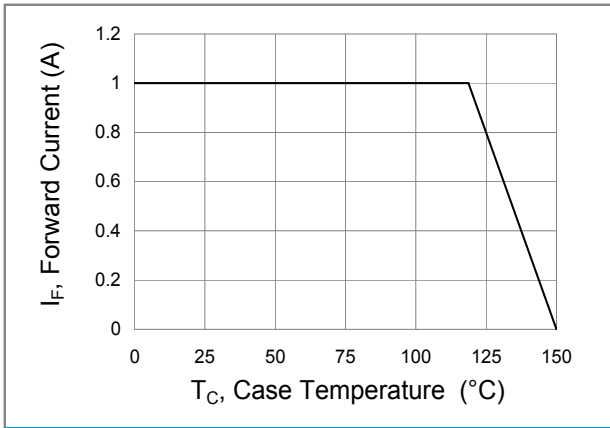


Fig.1 Forward Current Derating Curve

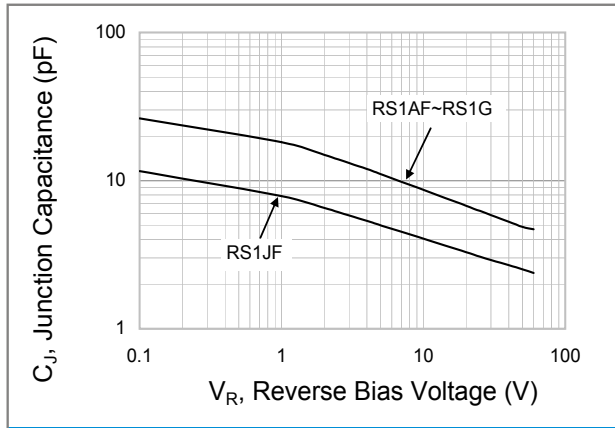


Fig.2 Typical Junction Capacitance

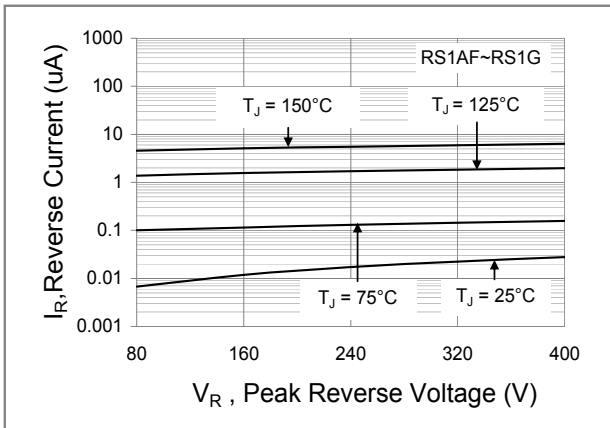


Fig.3 Typical Reverse Characteristics

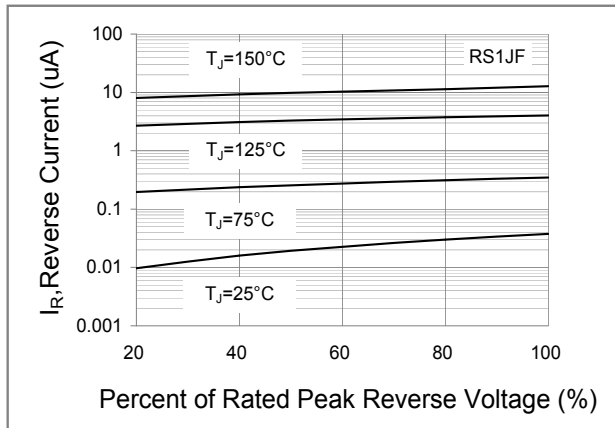


Fig.4 Typical Reverse Characteristics

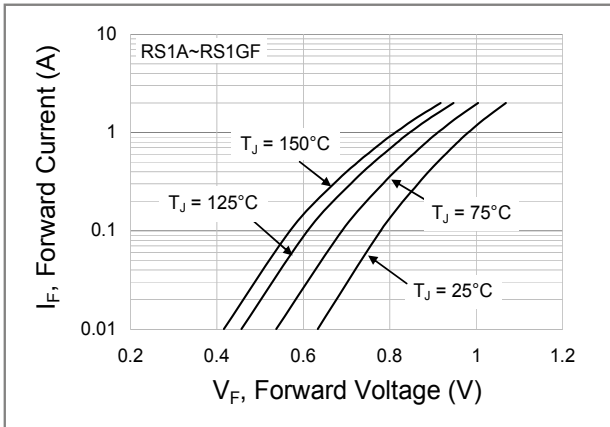


Fig.5 Typical Forward Characteristics

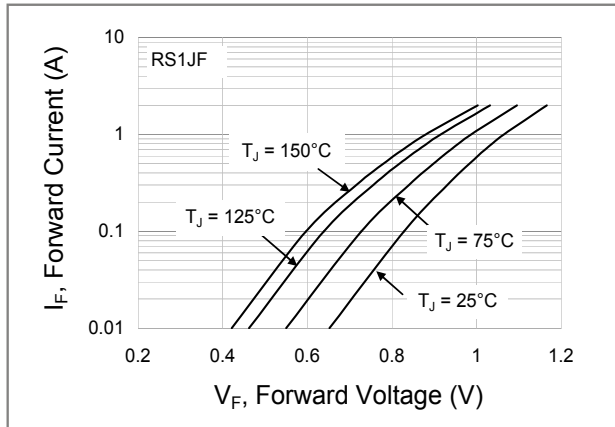
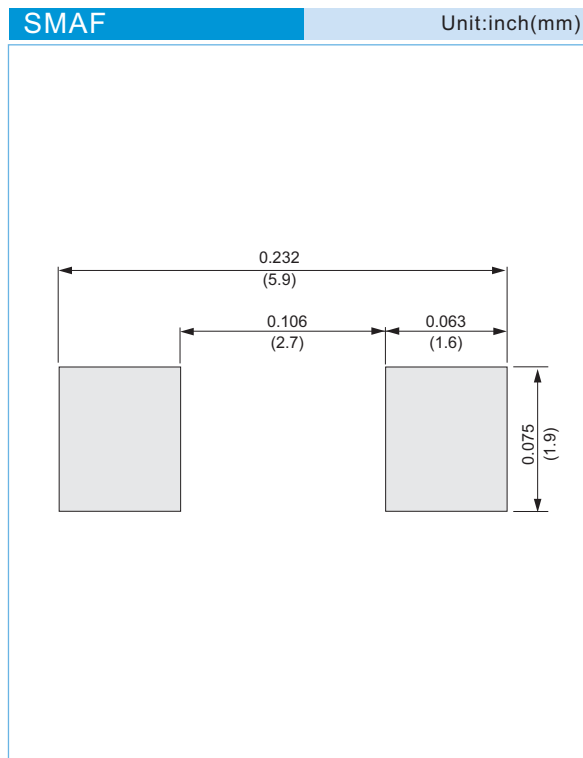


Fig.6 Typical Forward Characteristics



RS1AF SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
T/B	A	N/A	0	HF	0	serial number
T/R	R	7"	1	RoHS	1	serial number
B/P	B	13"	2			
T/P	T	26mm	X			
TRR	S	52mm	Y			
TRL	L	PBCU	U			
FORMING	F	PBCD	D			

Part No_packing code_Version

RS1AF_R1_00001

RS1AF_R2_00001