



EST1AF SERIES

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50~400 Volt **CURRENT** 1 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Super fast recovery times, high voltage
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

Case : SMAF Molded Plastic

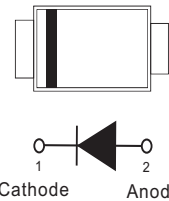
Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

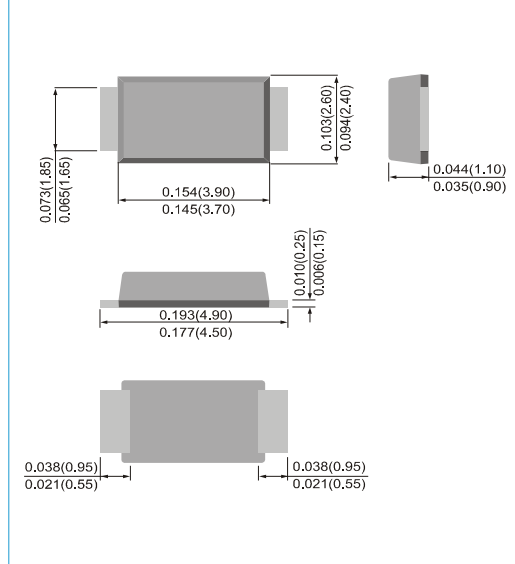
Standard packaging : 12mm tape (EIA-481)

Weight : 0.0011 ounces, 0.0328 grams

Marking : Part number



SMAF Unit : inch(mm)



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

PARAMETER	SYMBOL	EST1AF	EST1BF	EST1CF	EST1DF	EST1EF	EST1GF	UNIT
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	V
Maximum rms voltage	V _{RMS}	35	70	105	140	210	280	V
Maximum dc blocking voltage	V _R	50	100	150	200	300	400	V
Maximum average forward rectified current	I _{F(AV)}	1						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30						A
Maximum forward voltage at 1A	V _F	0.95			1.25			V
Maximum dc reverse current at rated dc blocking voltage	I _R	1						μA
Typical junction capacitance (Note 1)	C _J	20			16			pF
Maximum reverse recovery time (Note 2)	T _{RR}	25						nS
Typical thermal resistance (Note 3) (Note 4)	R _{θJL} R _{θJA}				20 150			°C/W
Operating junction temperature range	T _J	-55 to + 150						°C
Storage temperature range	T _{STG}	-55 to + 150						°C

Note:1.Measured at 1 MHz and Applied Reverse Voltage of 4 Volts.

2.Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, Recover to 0.25A.

3.Mounted on a FR4 PCB, single-sided copper, with 10cm*10cm copper pad area.

4.Mounted on a FR4 PCB, single-sided copper, mini pad.



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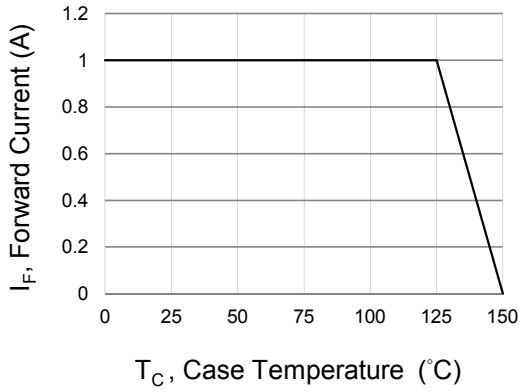


Fig.1 Forward Current Derating Curve

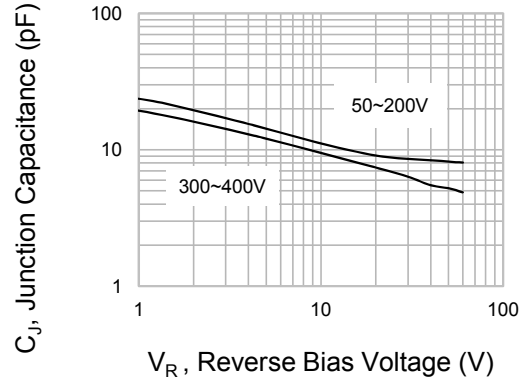


Fig.2 Typical Junction Capacitance

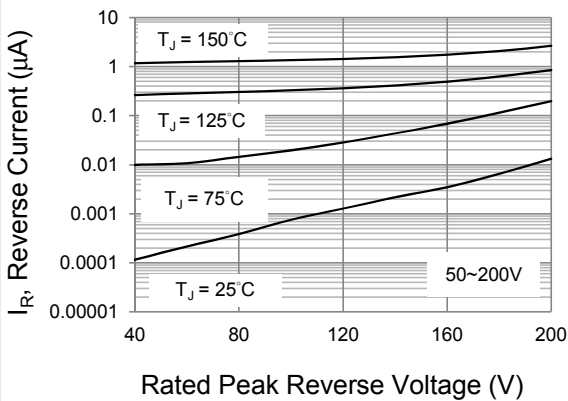


Fig.3 Typical Reverse Characteristics

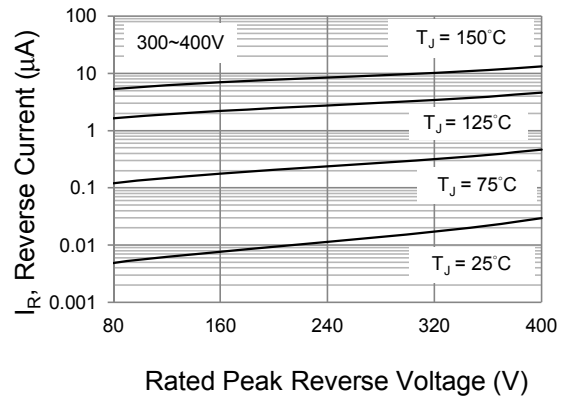


Fig.4 Typical Reverse Characteristics

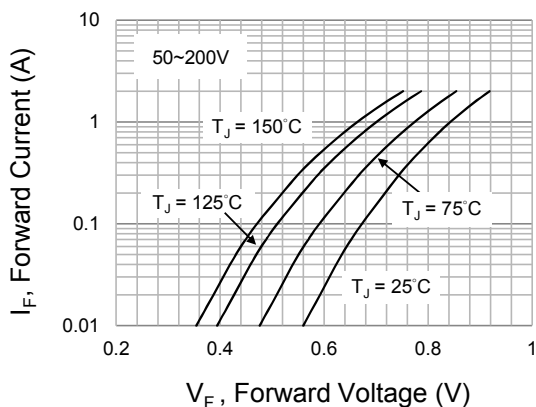


Fig.5 Typical Forward Characteristics

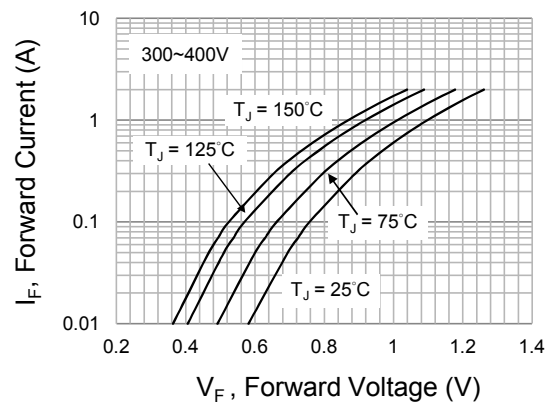
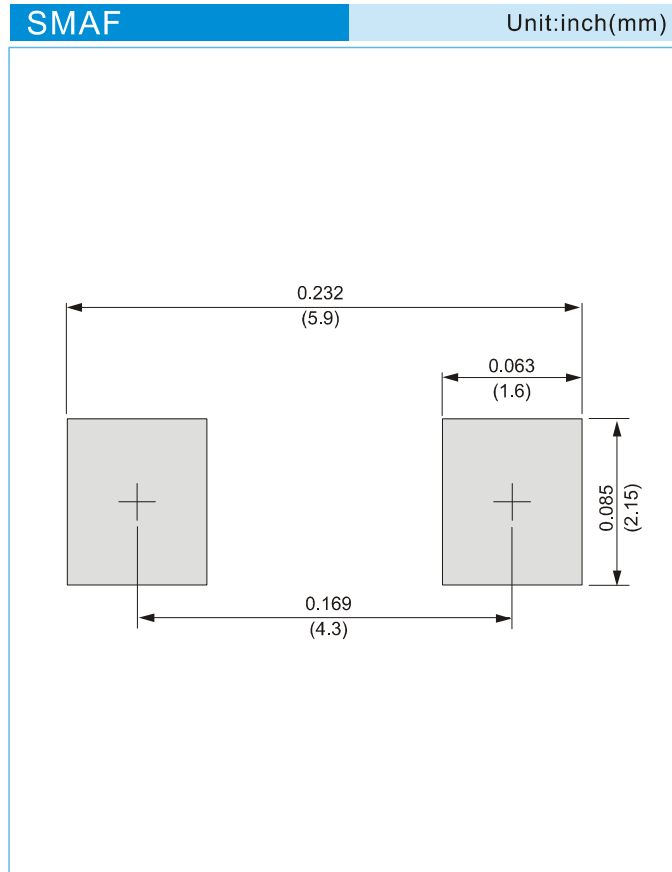


Fig.6 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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



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Part No_packing code_Version

EST1AF_R1_00001

EST1AF_R2_00001

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
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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