



ES1AF SERIES

SURFACE MOUNT SUPERFAST RECTIFIER

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

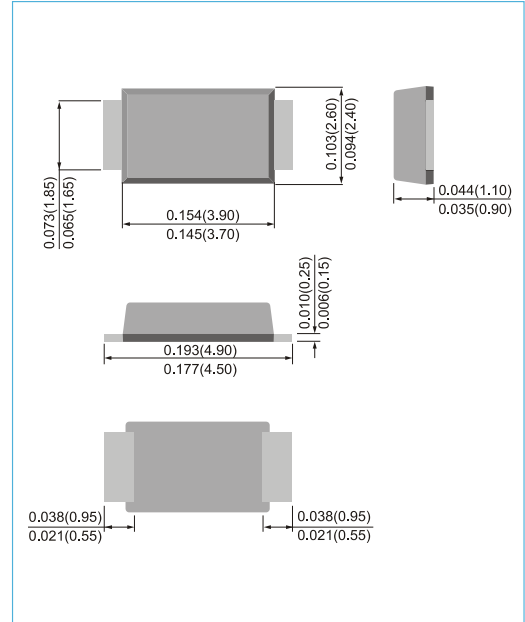
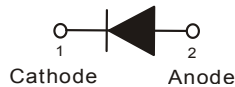
SMAF Unit : inch(mm)

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Superfast recovery times for high efficiency
- Glass Passivated Chip 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 : 0.00116 ounces, 0.0328 grams



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

PARAMETER	SYMBOL	ES1AF	ES1BF	ES1CF	ES1DF	ES1EF	ES1GF	ES1JF	UNITS
Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
DC Blocking Voltage	V _R	50	100	150	200	300	400	600	V
Average Forward Current	I _{F(AV)}	1.0							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	0.95			1.25		1.7		V
DC Reverse Current at Rated DC Blocking Voltage T _J =25°C	I _R	1.0							μA
Typical Junction capacitance V _R =4V,1MHz	C _J	15							pF
Typical Thermal Resistance ,Junction to Lead (Note 1) Junction to Ambient (Note 2)	R _{θJL} R _{θJA}	24 150							°C / W
Reverse Recovery Time at I _F =0.5A,I _R =1.0A,I _{RR} =0.25A	trr	35							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.



ES1AF SERIES

RATING AND CHARACTERISTIC CURVES

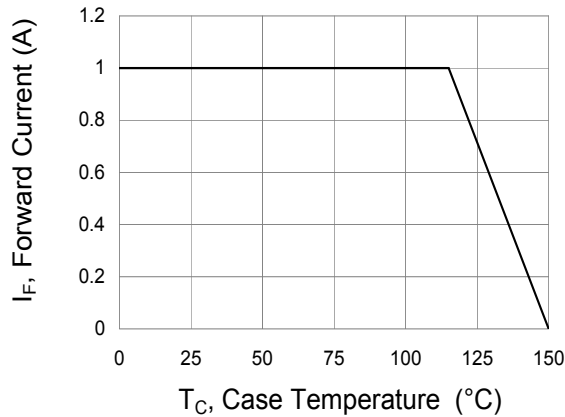


Fig.1 Forward Current Derating Curve

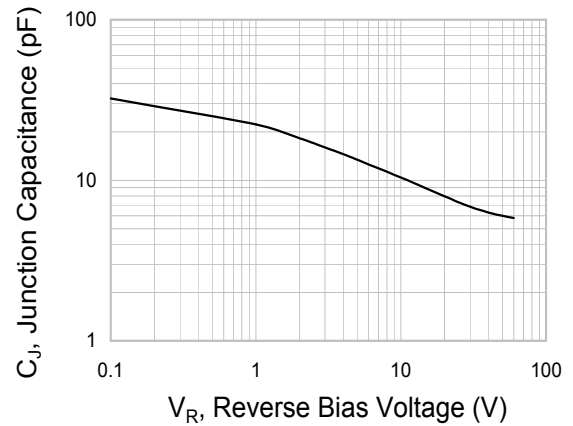


Fig.2 Typical Junction Capacitance

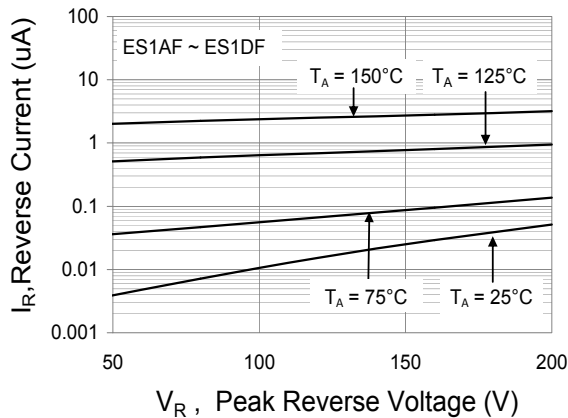


Fig.3 Typical Reverse Characteristics

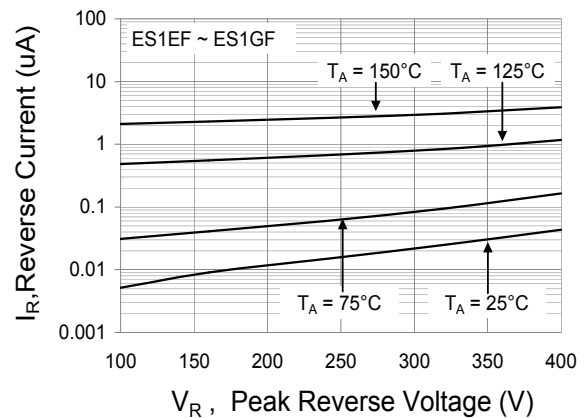


Fig.4 Typical Reverse Characteristics

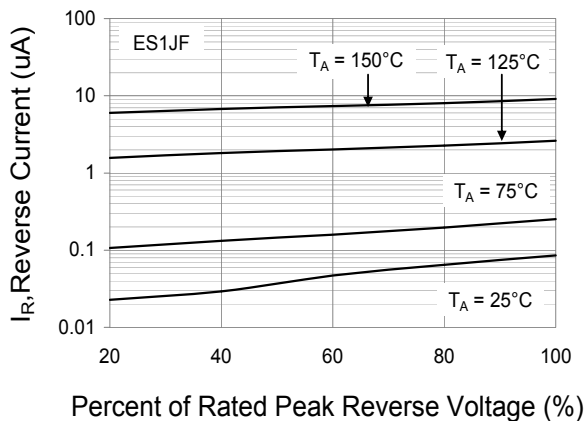


Fig.5 Typical Reverse Characteristics

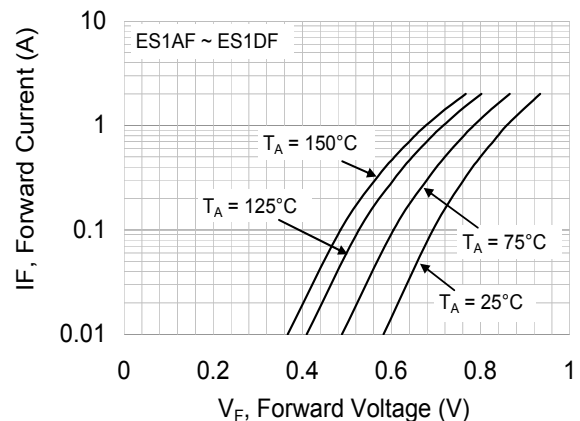


Fig.6 Typical Forward Characteristics



ES1AF SERIES

RATING AND CHARACTERISTIC CURVES

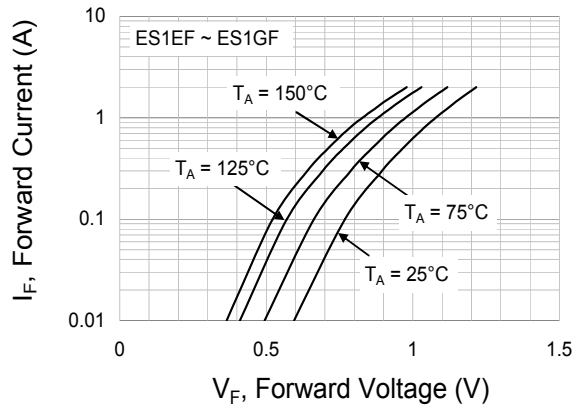


Fig.7 Typical Forward Characteristics

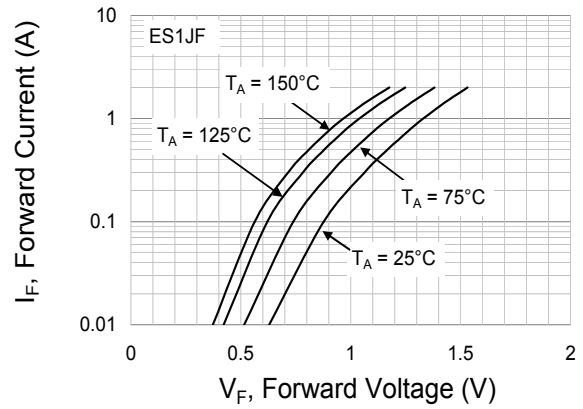
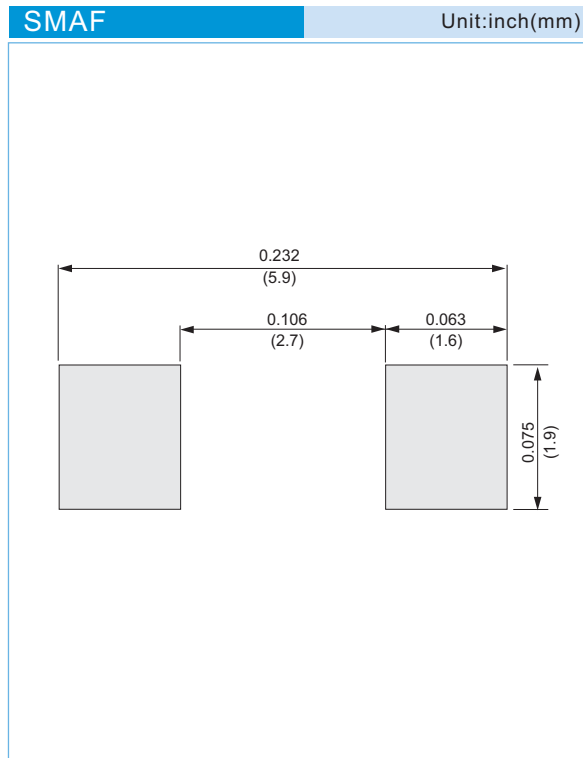


Fig.8 Typical Forward Characteristics



ES1AF SERIES

MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

Copyright PanJit International, Inc 2012

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.