

ERT1AAFC ~ ERT1GAFC Series

Surface Mount Super Fast Recovery Rectifier

Voltage

50~400 V

Current

1 A

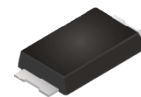
Features

- For surface mounted applications in order to optimize board space
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification94V-O
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : Molded plastic, SMAF-C
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0012 ounces, 0.034 grams

SMAF-C



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	ERT1AAFC	ERT1BAFC	ERT1CAFC	ERT1DAFC	ERT1EAFC	ERT1GAFC	UNITS
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 : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	30						A
Instantaneous Forward Voltage at 1A	V _F	0.95				1.25		V
Reverse Current	I _R	1						uA
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4V	C _J	20				16		pF
Reverse Recovery Time ^(Note 1)	T _{RR}	25						ns
Typical Thermal Resistance ^(Note 2)	R _{θJL}	20						°C/W
	R _{θJA}	150						
Operating Junction Temperature Range	T _J	-55 to +150						°C
Storage Temperature Range	T _{STG}	-55 to +150						°C

NOTES:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, Recover to 0.25A
2. Mounted on a FR4 PCB, single-sided copper, with 10cm*10cm copper pad area
3. Mounted on a FR4 PCB, single-sided copper, standard footprint

ERT1AAFC ~ ERT1GAFC Series

TYPICAL CHARACTERISTIC CURVES

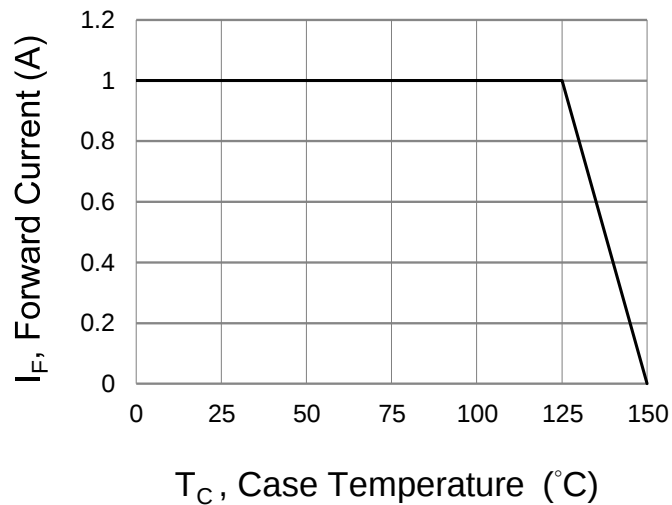


Fig.1 Forward Current Derating Curve

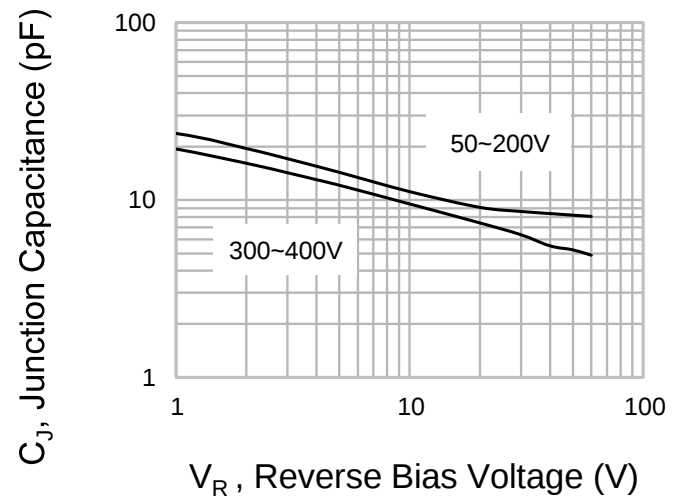


Fig.2 Typical Junction Capacitance

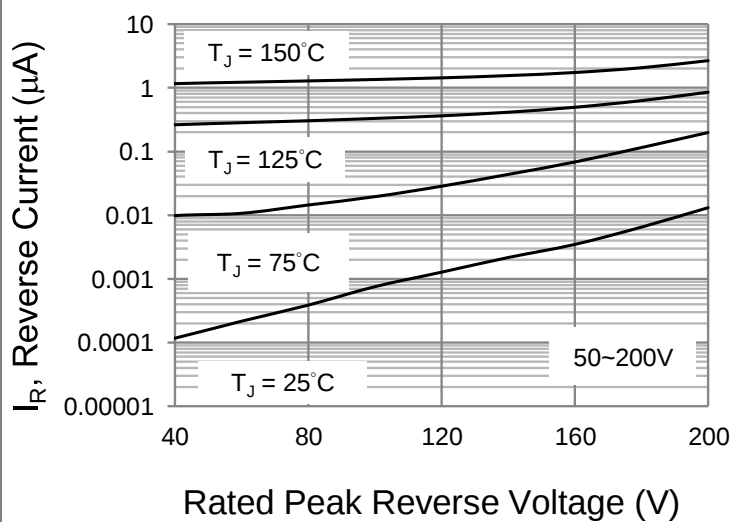


Fig.3 Typical Reverse Characteristics

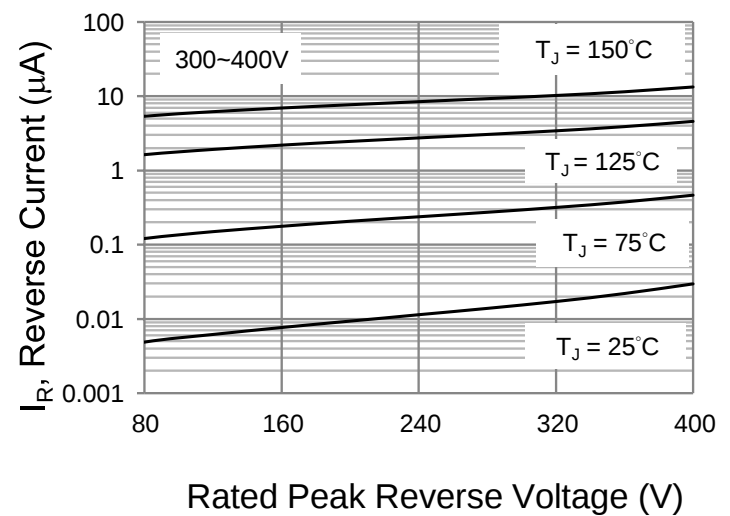


Fig.4 Typical Reverse Characteristics

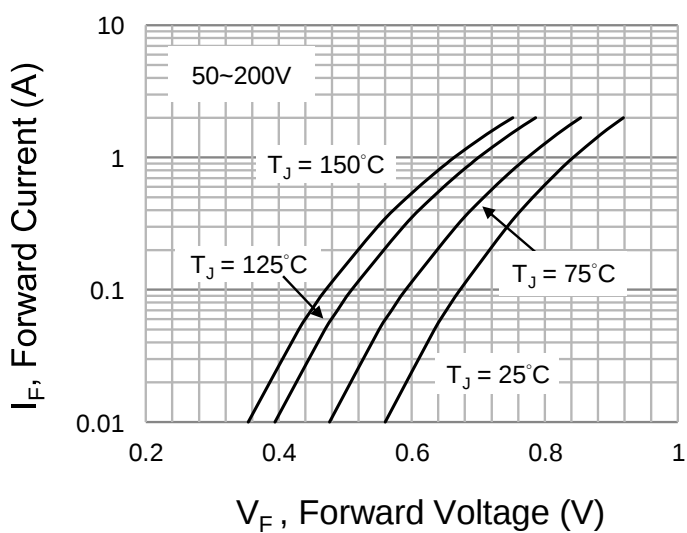


Fig.5 Typical Forward Characteristics

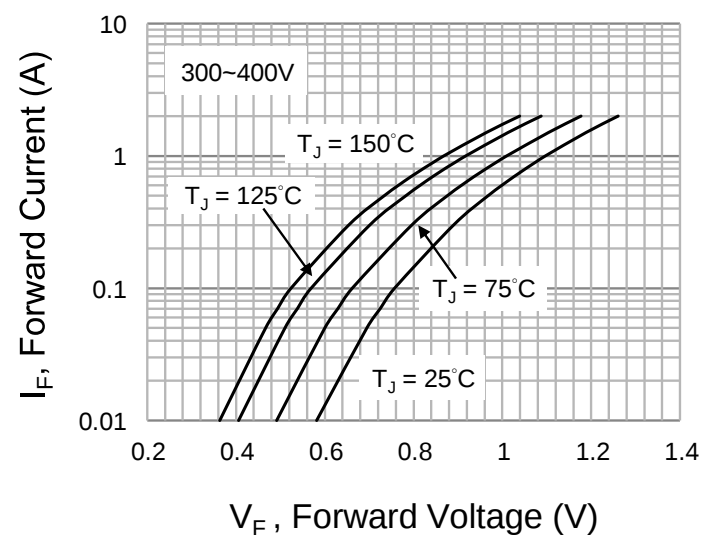


Fig.6 Typical Forward Characteristics



ERT1AAFC ~ ERT1GAFC Series

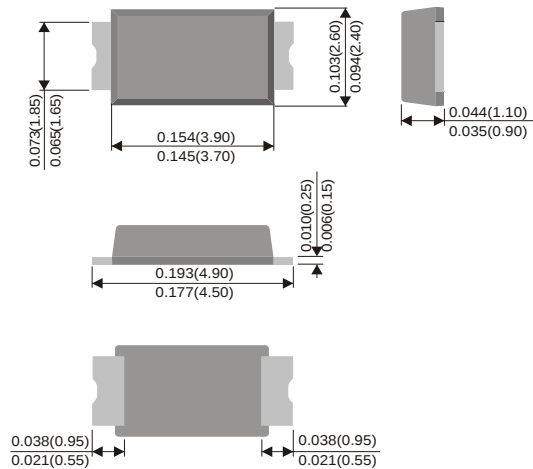
Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
ERT1AAFC_R1_00001	SMAF-C	3K pcs / 7" reel	ERT1A	Halogen free
ERT1BAFC_R1_00001	SMAF-C	3K pcs / 7" reel	ERT1B	Halogen free
ERT1CAFC_R1_00001	SMAF-C	3K pcs / 7" reel	ERT1C	Halogen free
ERT1DAFC_R1_00001	SMAF-C	3K pcs / 7" reel	ERT1D	Halogen free
ERT1EAFC_R1_00001	SMAF-C	3K pcs / 7" reel	ERT1E	Halogen free
ERT1GAFC_R1_00001	SMAF-C	3K pcs / 7" reel	ERT1G	Halogen free

Packaging Information & Mounting Pad Layout

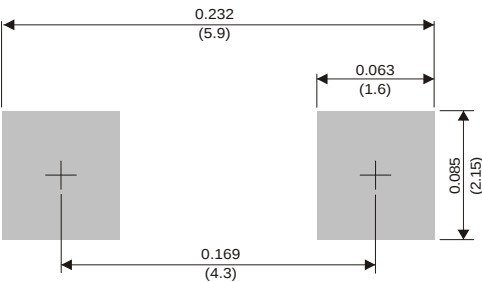
SMAF-C Dimension

Unit: inch(mm)



SMAF-C Pad Layout

Unit: inch(mm)





ERT1AAFC ~ ERT1GAFC Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.