

ERT1AAFC ~ ERT1GAFC Series

Surface Mount Super Fast Recovery Rectifier

Voltage

50~400 V

Current

1 A

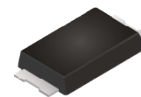
Features

- 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

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TYPICAL CHARACTERISTIC CURVES

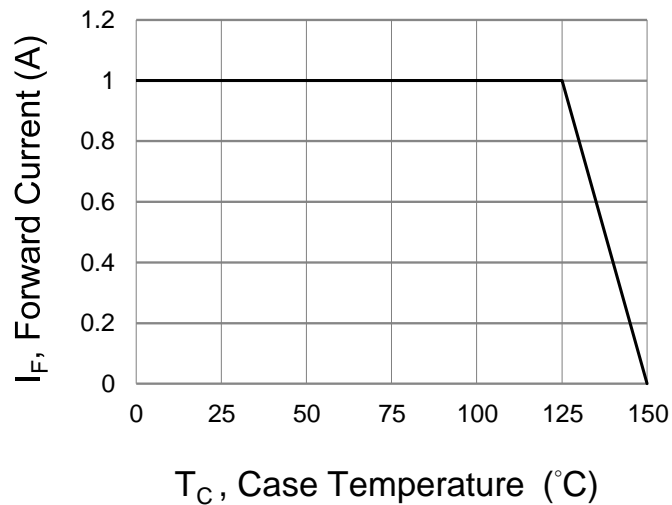


Fig.1 Forward Current Derating Curve

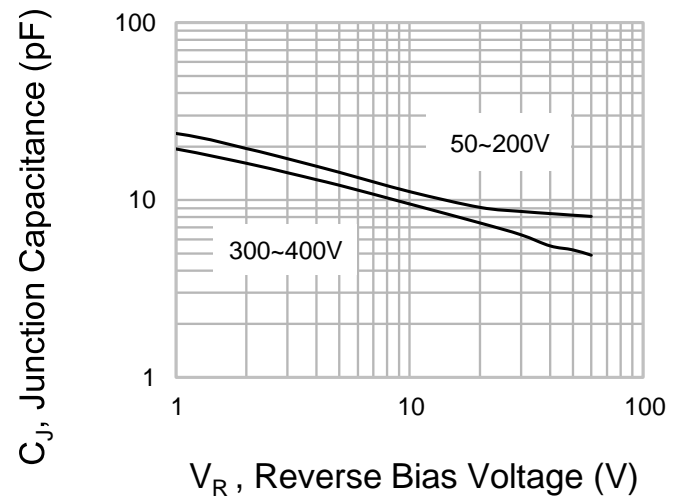


Fig.2 Typical Junction Capacitance

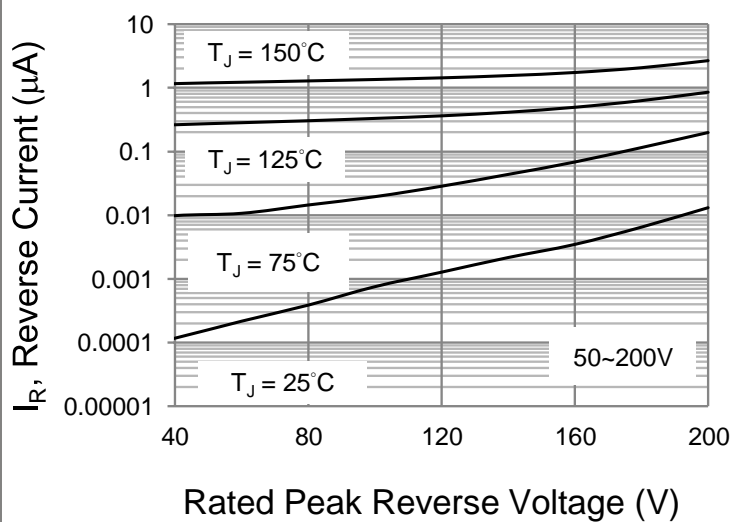


Fig.3 Typical Reverse Characteristics

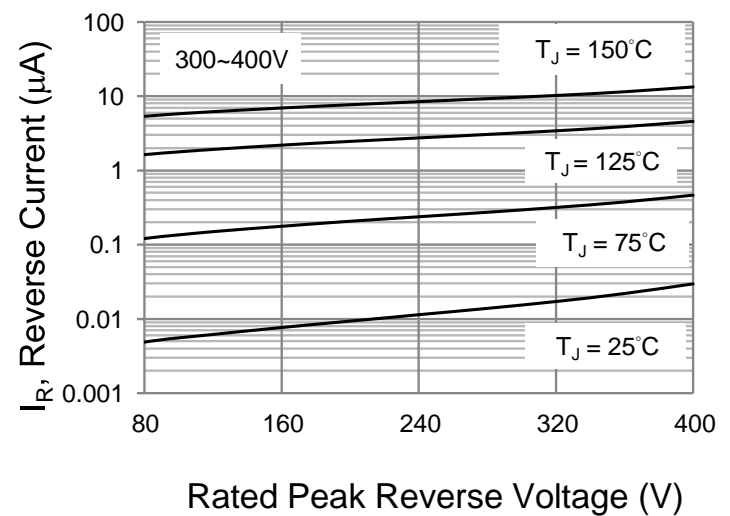


Fig.4 Typical Reverse Characteristics

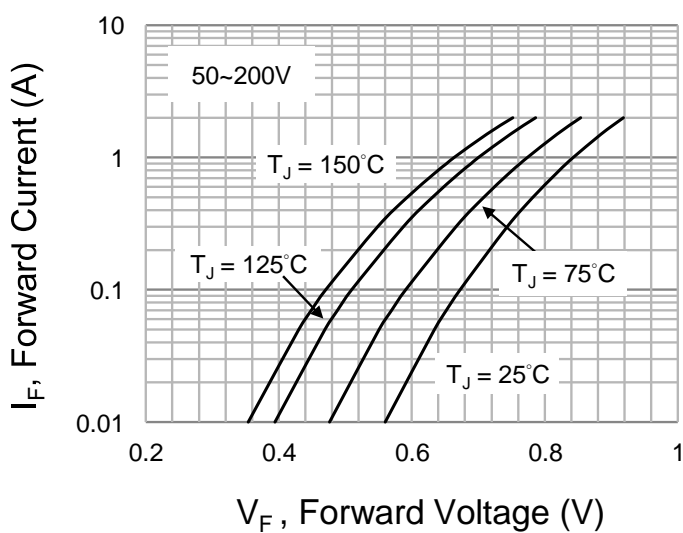


Fig.5 Typical Forward Characteristics

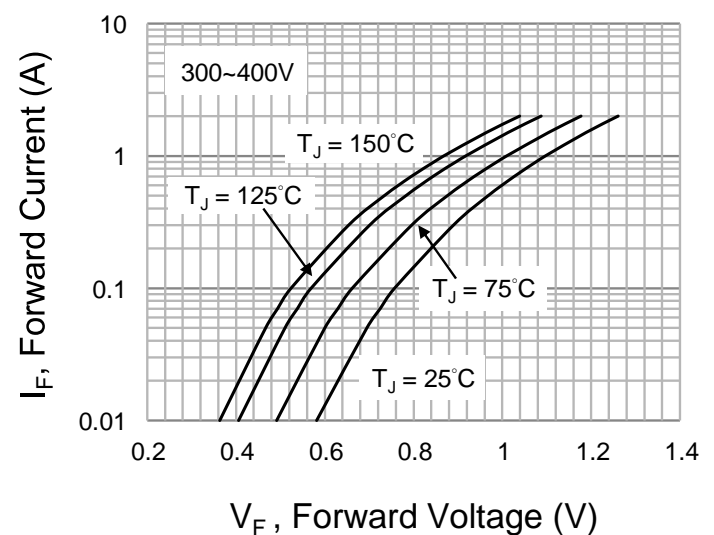


Fig.6 Typical Forward Characteristics



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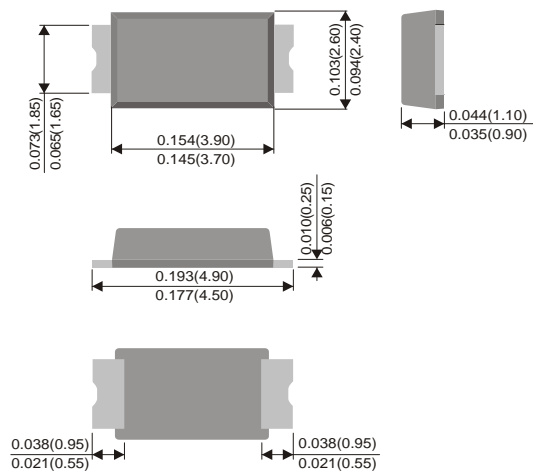
Part No. Packing Code Version

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

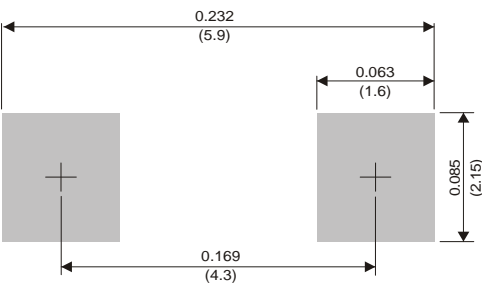
SMAF-C Dimension

Unit: inch(mm)



SMAF-C Pad Layout

Unit: inch(mm)





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