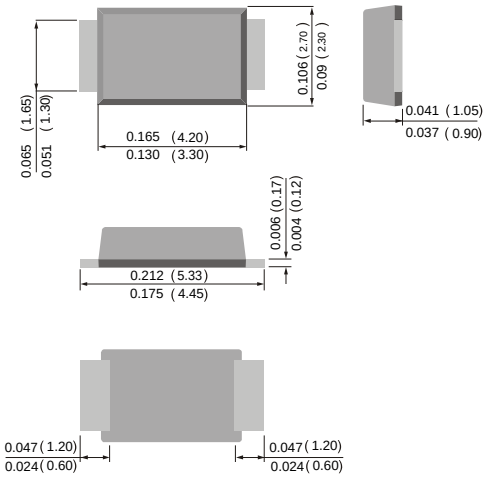
ES2AF~ES2JF

SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50 to 600 Volt **CURRENT** 2 Ampere

Green

SMAF Unit: inch (mm)

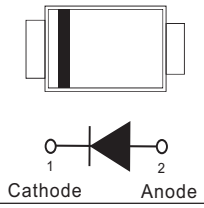


FEATURES

- For surface mounted applications in order to optimize board space
- Easy pick and place
- Superfast recovery times for high efficiency.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: JEDEC SMAF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Indicated by cathode band



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	ES2AF	ES2BF	ES2CF	ES2DF	ES2EF	ES2GF	ES2JF	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Current	$I_{F(AV)}$	2							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50							A
Maximum Forward Voltage at 2A	V_F	0.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_J=25°C T_J=100°C	I_R	5 150							μA
Maximum Reverse Recovery Time (Note 3)	t_{rr}	35							ns
Typical Junction Capacitance Measured at 1MHz and applied V_R=4V	C_J	25							pF
Typica Thermal Resistance (Note 2) (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	150 30							°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

NOTES :

1.Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area.

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

3.Reverse Recovery Test Conditions: I_F=0.5A , I_R=1A Irr=0.25A.

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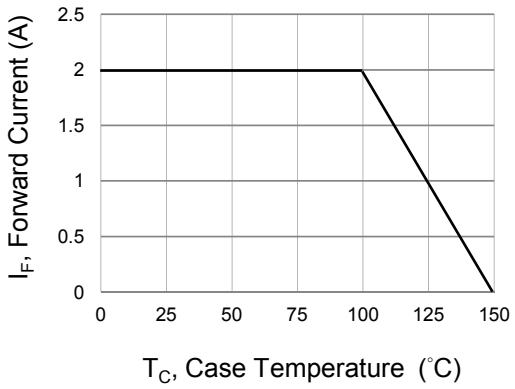

Fig.1 Forward Current Derating Curve

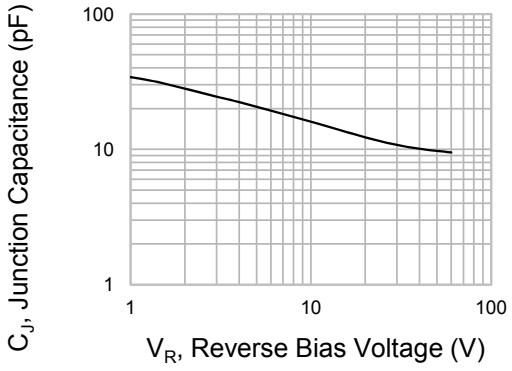

Fig.2 Typical Junction Capacitance

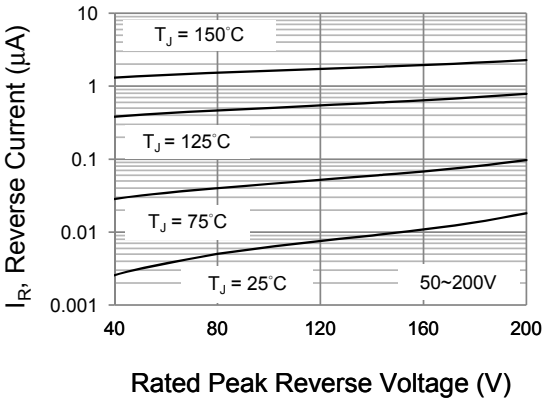

Fig.3 Typical Reverse Characteristics

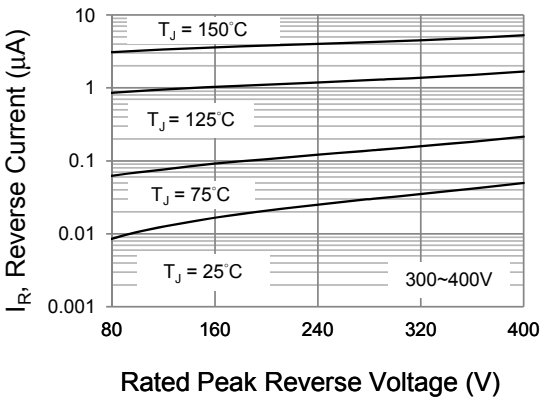

Fig.4 Typical Reverse Characteristics

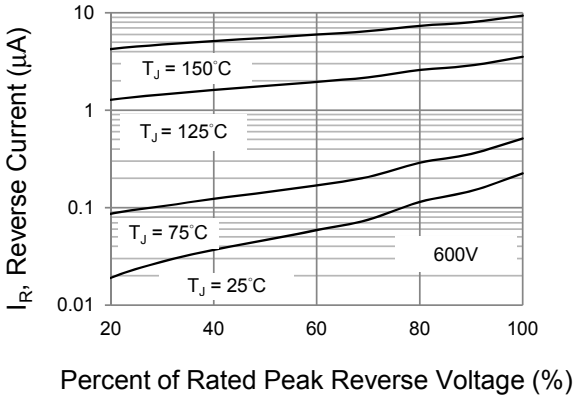

Fig.5 Typical Reverse Characteristics

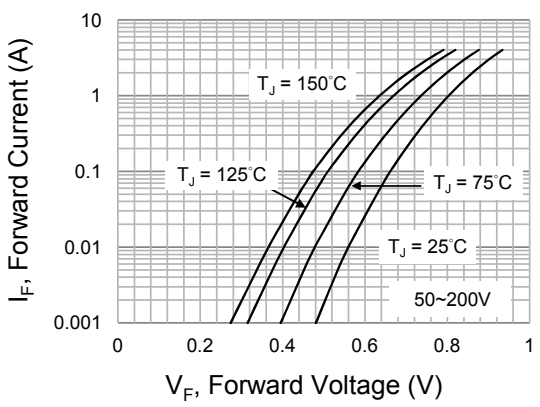

Fig.6 Typical Forward Characteristics

ES2AF~ES2JF

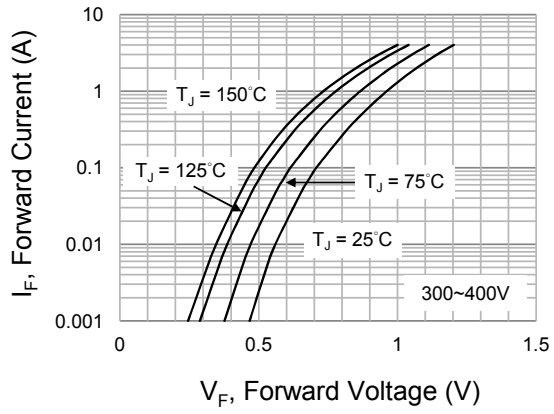

Fig.7 Typical Forward Characteristics

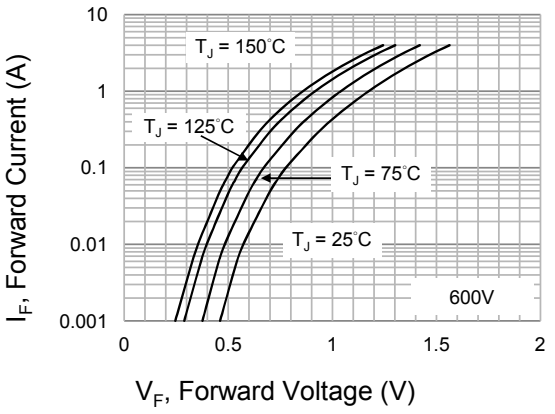

Fig.8 Typical Forward Characteristics