



SURFACE MOUNT SUPERFAST RECOVERY RECTIFIERS

Forward Current-2A

Reverse Voltage-50V to 600V

FEATURES

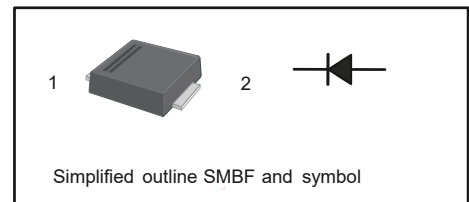
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Low profile package
- ◆ Superfast reverse recovery time
- ◆ Lead free in comply with EU RoHS2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SMBF molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.057 grams

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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 current derating by 20 %.

PARAMETER	SYMBOL	ES2ABF -D>	ES2BBF -D>	ES2CBF -D>	ES2DBF -D>	ES2EBF -D>	ES2GBF -D>	ES2JBF -D>	UNIT
Maximum Repetitive 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 Rectified Current at T _C =125°C	I _{F(AV)}	2.0							A
Peak Forward Surge Current (Note1)	I _{FSM}	50							A
Maximum Forward Voltage at 2.0 A	V _F	1				1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage at T _A =25°C T _A =125°C	I _R	5 100							uA
Typical Junction Capacitance at V _R =4V,f=1MHz	C _J	28							pF
Maximum Reverse Recovery Time (Note2)	T _{rr}	35							nS
Typical Thermal Resistance (Note3)	R _{θJA} R _{θJC}	60 18							°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to +150							°C

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

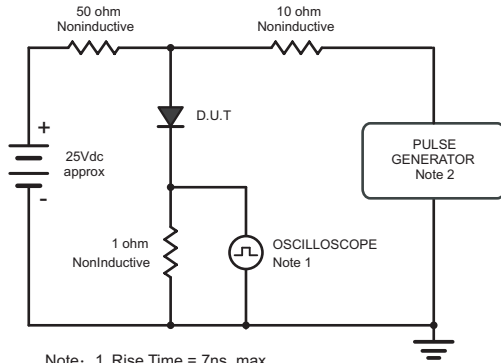
2. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



RATINGS AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rises Time = 10ns, max.
Source Impedance = 50 ohms.

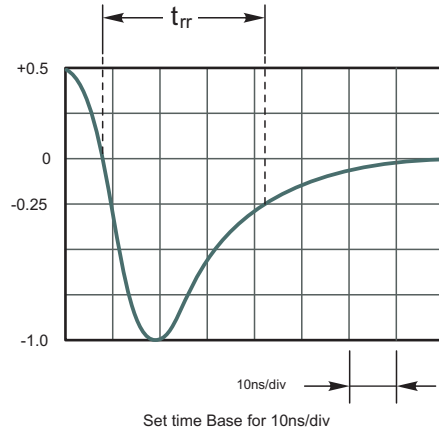


Fig.2 Maximum Average Forward Current Rating

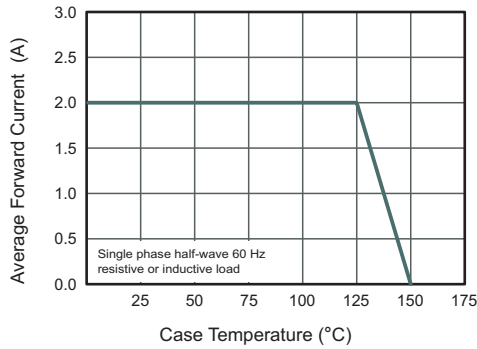


Fig.3 Typical Reverse Characteristics

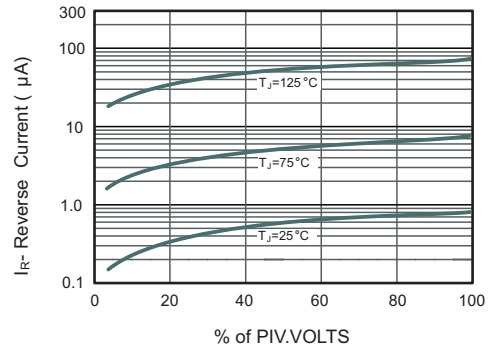


Fig.4 Typical Forward Characteristics

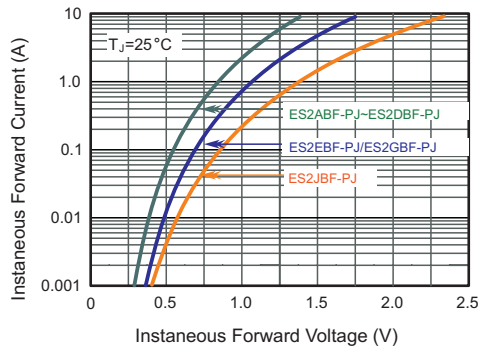


Fig.5 Typical Junction Capacitance

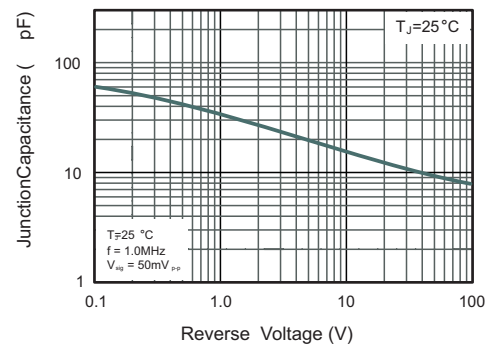
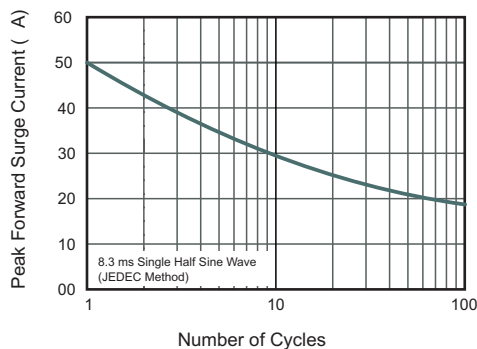


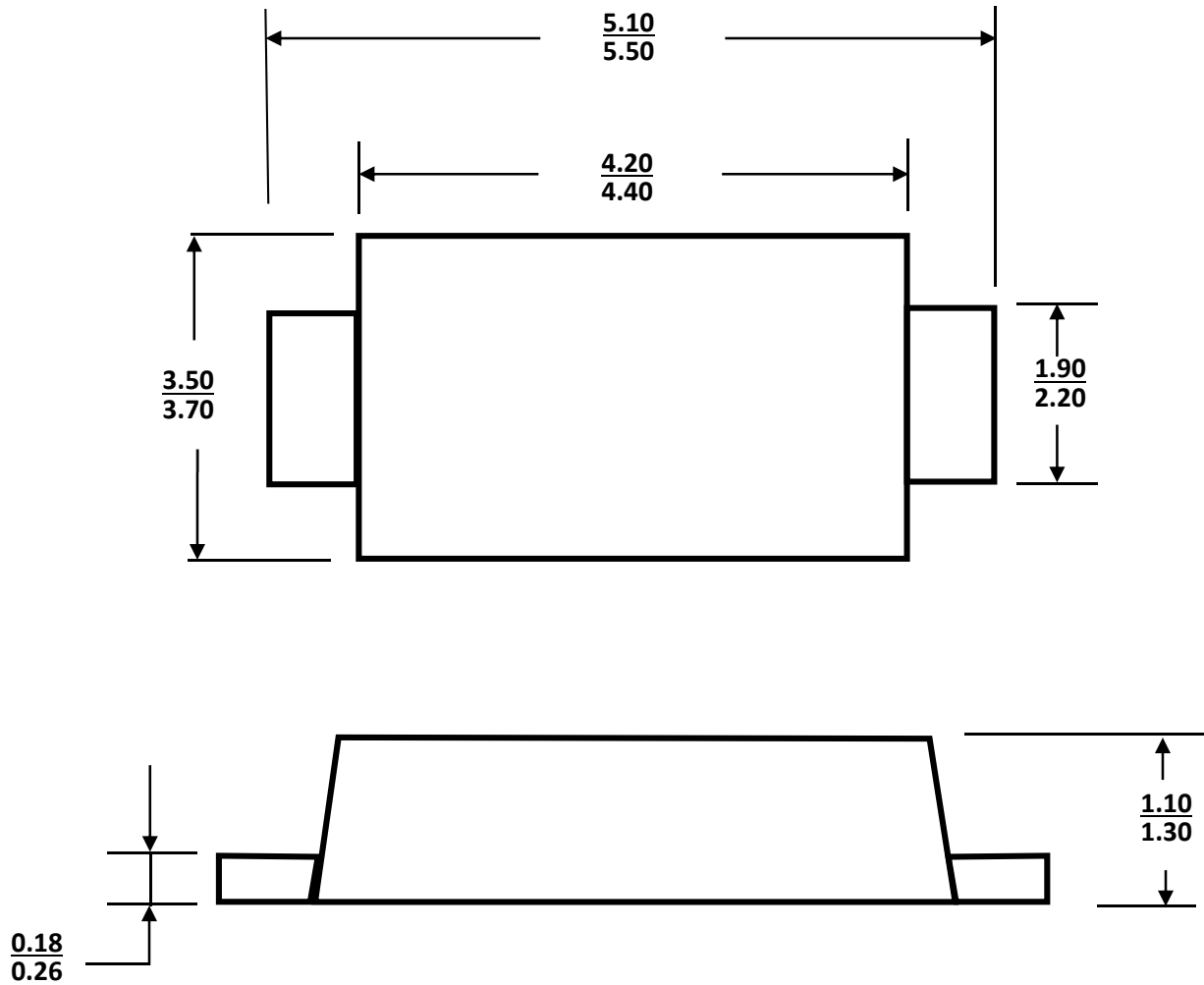
Fig.6 Maximum Non-Repetitive Peak Forward Surge Current





PACKAGE OUTLINE

SMBF



Dimensions in millimeters

ORDERING INFORMATION

Device	Package	Shipping
ES2ABF-PJ thru ES2JBF-PJ	SMBF	5,000/Tape & Reel (13 inches)