

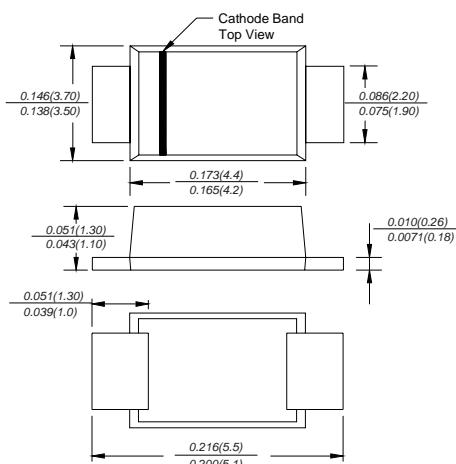


# ES2ABF THRU ES2JBF

## SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 2.0 Amperes

### SMBF



Dimensions in inches and (millimeters)

### FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

**Case:** JEDEC SMBF molded plastic body

**Terminals:** leads solderable per MIL-STD-750, Method 2026

**Mounting Position:** Any

**Weight:** 57mg/0.002oz

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	ES2ABF	ES2BBF	ES2DBF	ES2GBF	ES2JBF	UNITS
Marking code		E2AB	E2BB	E2DB	E2GB	E2JB	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	VOLTS
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	VOLTS
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	VOLTS
Maximum average forward rectified current at T <sub>L</sub> =100°C	I <sub>(AV)</sub>				2.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>				50		Amps
Maximum instantaneous forward voltage at 2.0A	V <sub>F</sub>		1.0		1.25	1.65	Volts
Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=125°C	I <sub>R</sub>			5.0			µA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>			35			ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>			45.0			pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>			65.0			°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>			-55 to +150			°C

**Note:** 1. Reverse recovery condition I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A

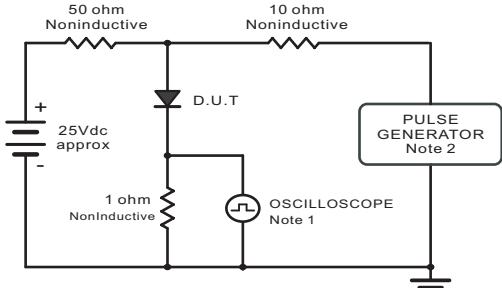
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. P.C.B. mounted with 0.5x0.5" (12.7x12.7mm) copper pad areas

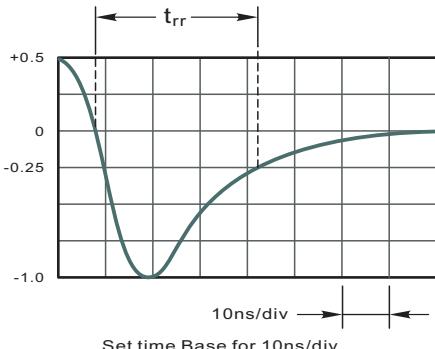


# RATINGS AND CHARACTERISTIC CURVES ES2ABF THRU ES2JBF

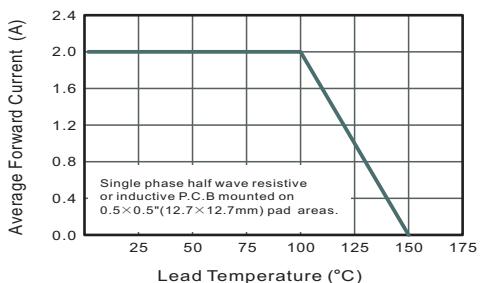
**Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram**



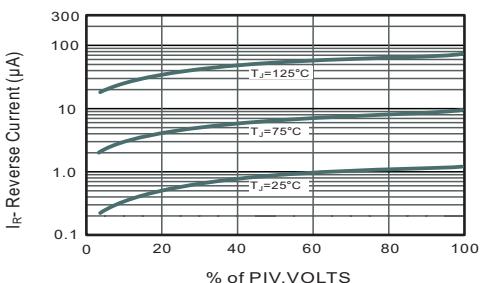
Note: 1. Rise Time = 7ns, max.  
Input Impedance = 1megohm, 22pF.  
2. Ries Time = 10ns, max.  
Source Impedance = 50 ohms.



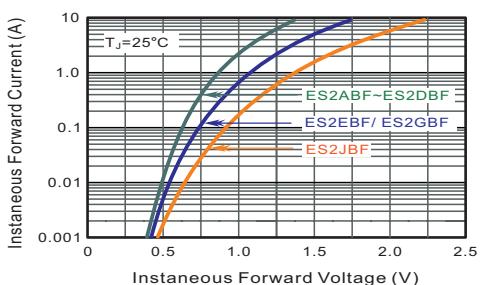
**Fig.2 Maximum Average Forward Current Rating**



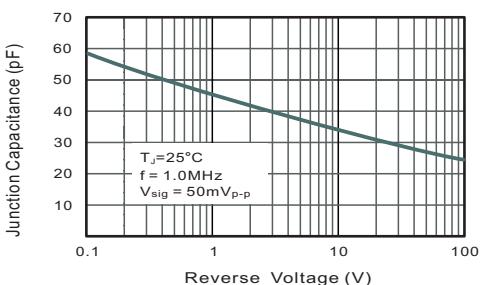
**Fig.3 Typical Reverse Characteristics**



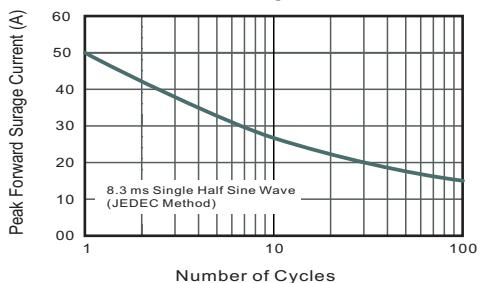
**Fig.4 Typical Forward Characteristics**



**Fig.5 Typical Junction Capacitance**



**Fig.6 Maximum Non-Repetitive Peak Forward Surge Current**



The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

