



## DESCRIPTION

The ES2ABF~ES2JBF is available in SMBF Package

## FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Superfast reverse recovery time
- Available in SMBF Package

## ORDERING INFORMATION

Package Type	Part Number
SMBF	ES2ABF
	ES2BBF
	ES2CBF
	ES2DBF
	ES2EBF
	ES2GBF
	ES2JBF
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## MECHANICAL DATA

Case: SMBF

Terminals: Solderable per MIL-STD-750,  
Method 2026

Approx. Weight: 57mg/ 0.002oz

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

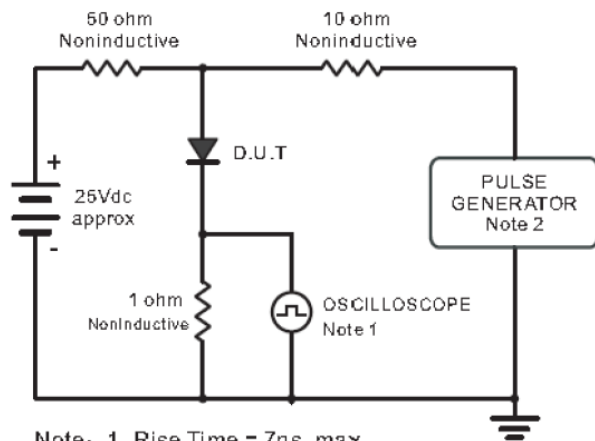
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Parameter		Symbol	ES2ABF	ES2BBF	ES2CBF	ES2DBF	ES2EBF	ES2GBF	ES2JBF	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 $T_L=100^\circ\text{C}$		$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		$I_{FSM}$	30							A
Maximum Forward Voltage at 2A		$V_F$	1				1.25		1.65	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	$I_R$	5							uA
	$T_A=125^\circ\text{C}$		100							
Typical Junction Capacitance at $V_R=4\text{V}$ , $f=1\text{MHz}$		$C_J$	45							pF
Maximum Reverse Recovery Time at $I_F=0.5\text{A}$ , $I_R=1\text{A}$ , $I_{rr}=0.25\text{A}$		$t_{rr}$	35							ns
Typical Thermal Resistance <sup>NOTE1</sup>		$R_{\theta JA}$	65							°C/W
Operating and Storage Temperature Range		$T_J$ , $T_{STG}$	-55 ~+150							°C

NOTE1: P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

## TYPICAL CHARACTERISTICS

Figure. 1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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

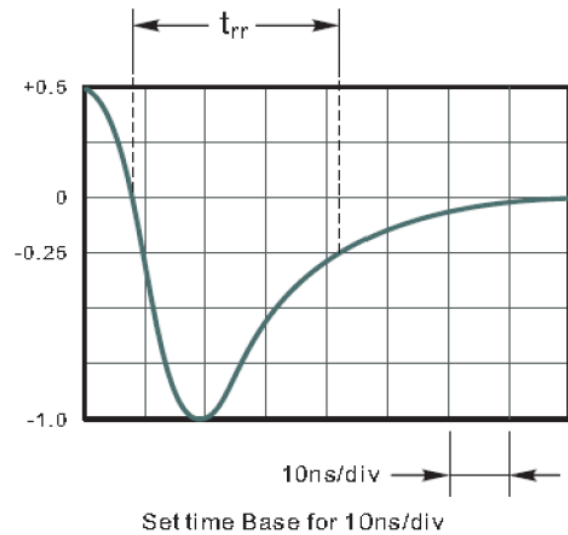


Figure. 2 Maximum Average Forward Current Rating

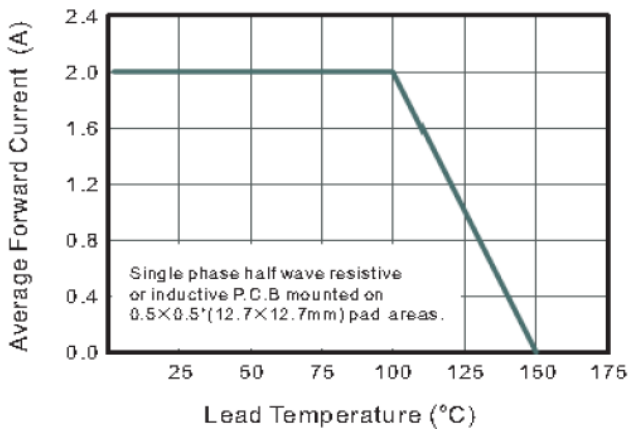


Figure. 3 Typical Reverse Characteristics

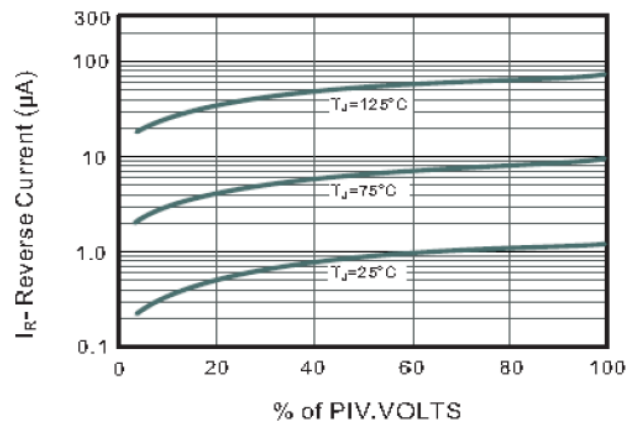




Figure. 4 Typical Forward Characteristics

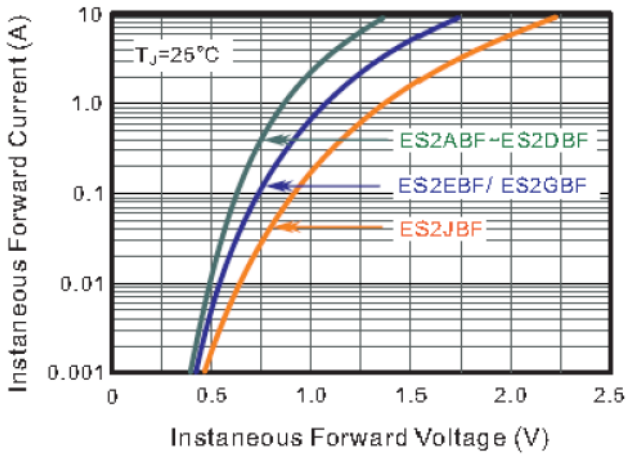


Figure. 5 Typical Junction Capacitance

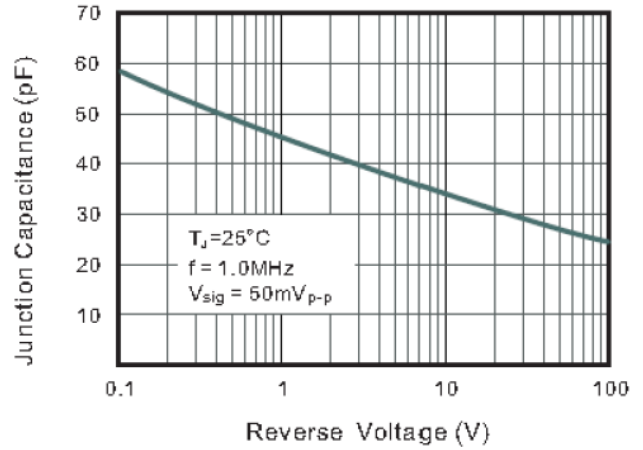
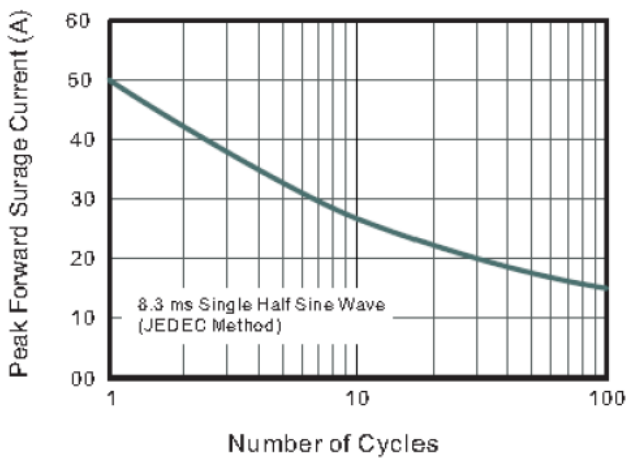


Figure. 6 Maximum Non-Repetitive Peak Forward Surge Current

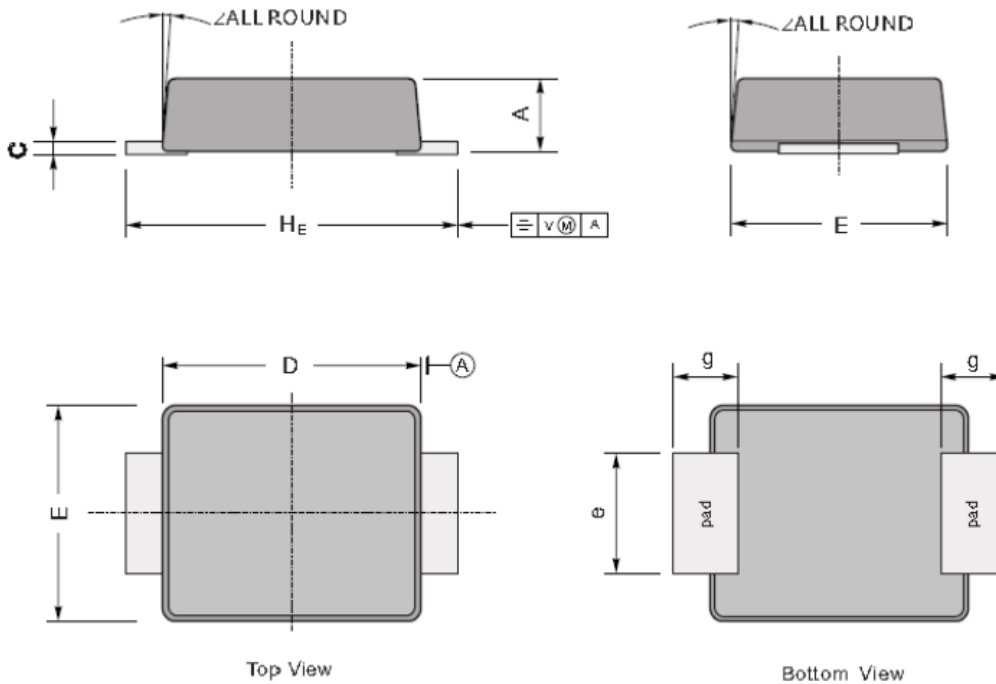




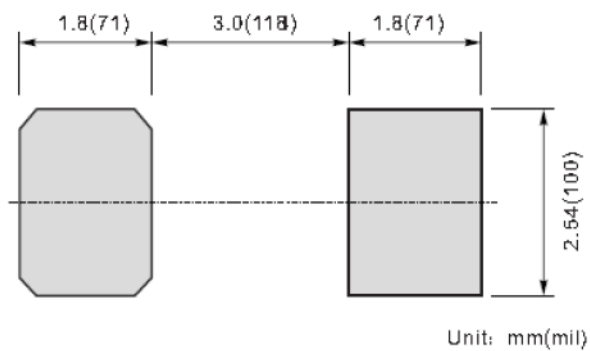
**PACKAGE INFORMATION**

Dimension in SMBF (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit: mm(mil)

UNIT		A	C	D	E	H <sub>E</sub>	e	g	∠
mm	Max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	Min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	Max	51	10	173	146	216	86	40	
	Min	43	7	165	138	200	75		



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