



DESCRIPTION

The ES2ABF~ES2JBF is available in SMBF package

ORDERING INFORMATION

Package Type	Part Number
SMBF	ES2ABF
	ES2BBF
	ES2CBF
	ES2DBF
	ES2EBF
	ES2GBF
	ES2JBF
Note	SPQ: 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

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

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	I_R	$T_A=25^\circ\text{C}$							uA
		$T_A=125^\circ\text{C}$							
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 ^{NOTE1}	$R_{\theta JA}$	65							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J , T_{STG}	-55 ~+150							$^\circ\text{C}$

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

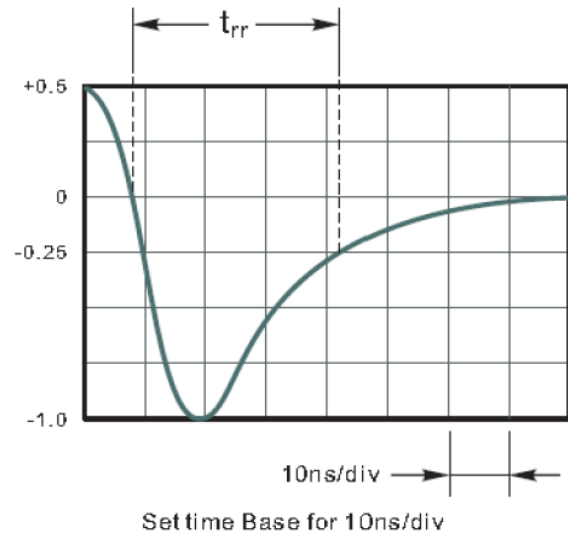
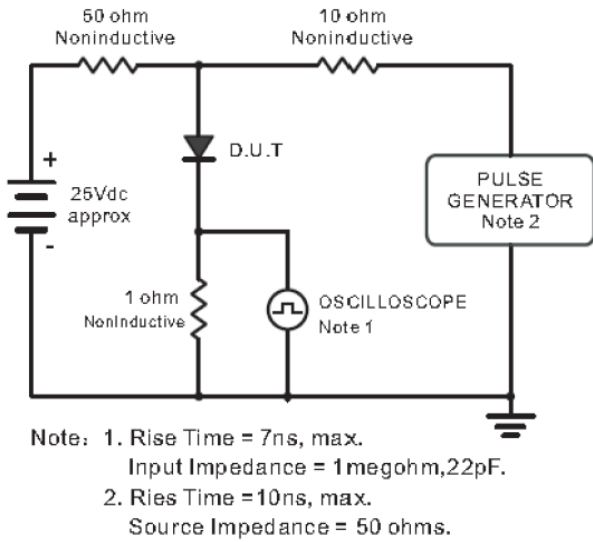


Figure. 2 Maximum Average Forward Current Rating

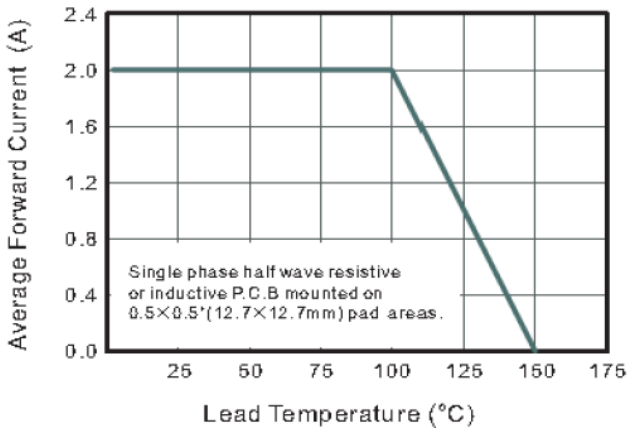


Figure. 3 Typical Reverse Characteristics

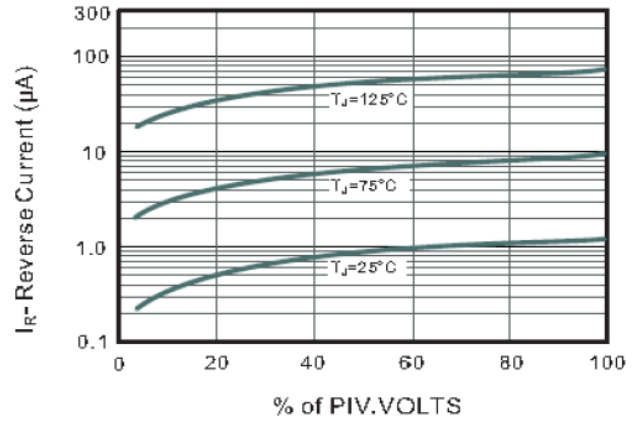




Figure. 4 Typical Forward Characteristics

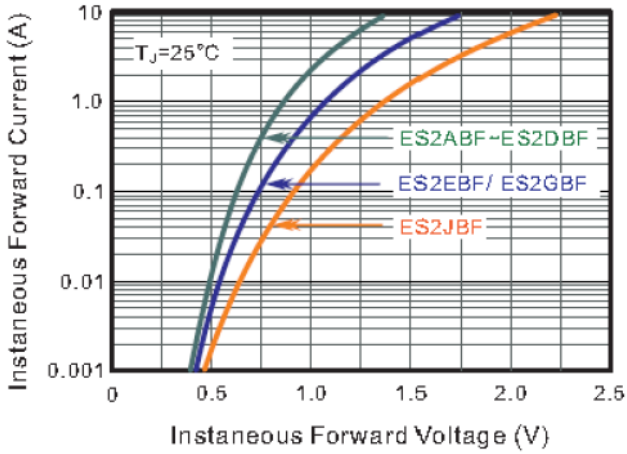


Figure. 5 Typical Junction Capacitance

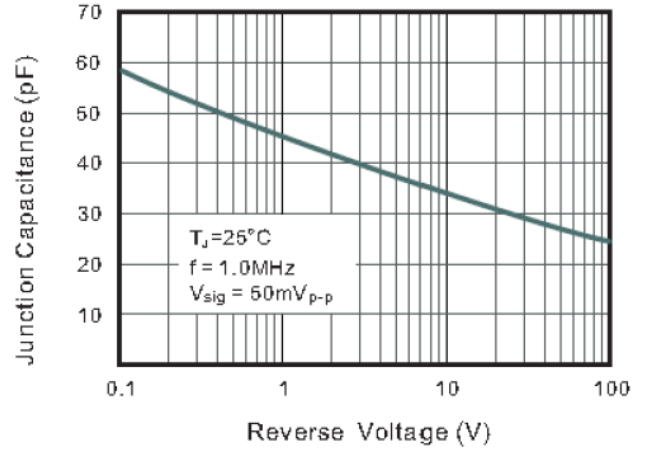
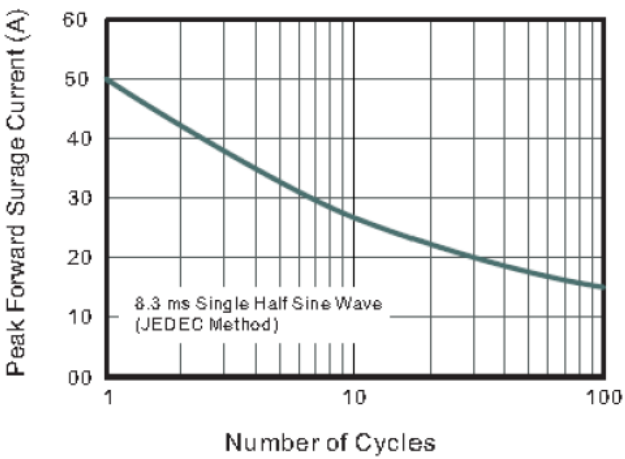


Figure. 6 Maximum Non-Repetitive Peak Forward Surge Current

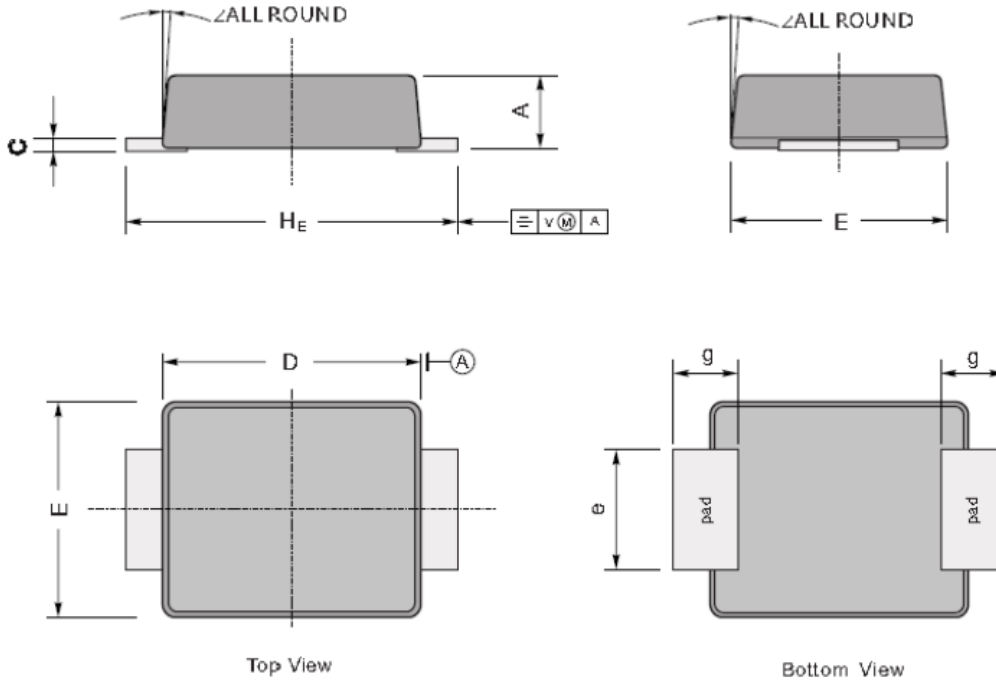




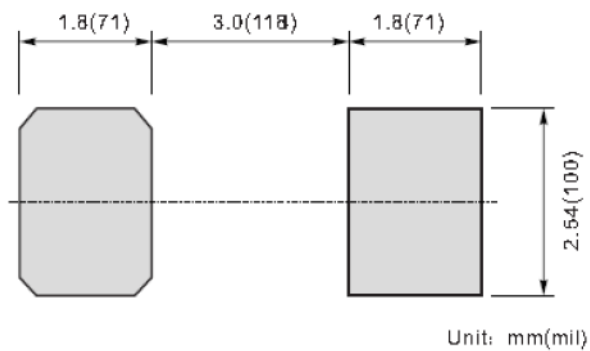
PACKAGE INFORMATION

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 _E	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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