

Rev.B May.-2019

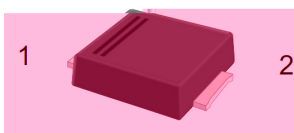
50V~600V 5.0A SMBF

Surface Mount Ultrafast Recovery Rectifier, Reverse Voltage: 50 to 600V, Forward Current: 5.0A, SMBF package.

RoHS 2011/65/EU

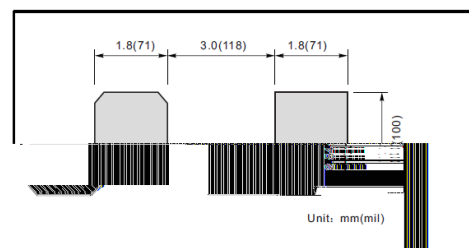
Glass Passivated Chip Junction High efficiency Lead free in comply with EU R HS 2011/65/EU directives For surface mounted applications. Halogen free product.

General purpose.



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



See Marking Instructions.

Parameter	Symbol	Rating							Unit
		ES5ABF	ES5BBF	ES5CBF	ES5DBF	ES5EBF	ES5GBF	ES5JBF	
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 Tc = 115	I _{F AV}	5.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	150							A
Typical Thermal Resistance ⁽¹⁾	R _{θJA}	40							°C/W
	R _{θJC}	12							
Operating and Storage Temperature Range	T _j , T _{stg}	-55~+150							°C

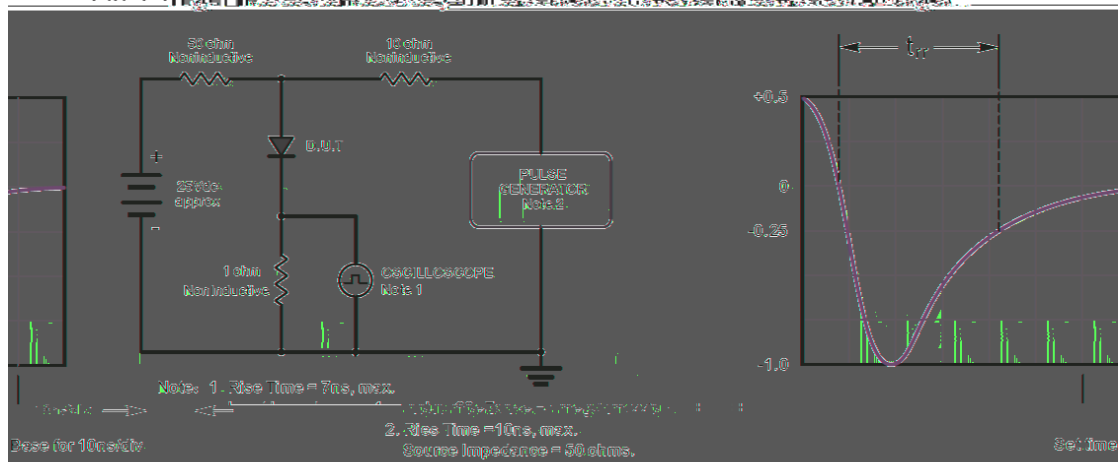
Note:

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areass .

Parameter	Symbol	Test condition	Rating							Unit
			ES5ABF	ES5BBF	ES5CBF	ES5DBF	ES5EBF	ES5GBF	ES5JBF	
Maximum Instantaneous Forward Voltage	V _F	I _F =5.0A	1.0				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _a =25	10.0							uA
		T _a =125	100							
Maximum Reverse Recovery Time	T _{rr}	I _F =0.5A I _R =1.0A I _{rr} =0.25A	35							ns

Rev.B May.-2019

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Reverse Characteristics

Fig.2 Maximum Average Forward Current Rating

Fig.3 Typical R

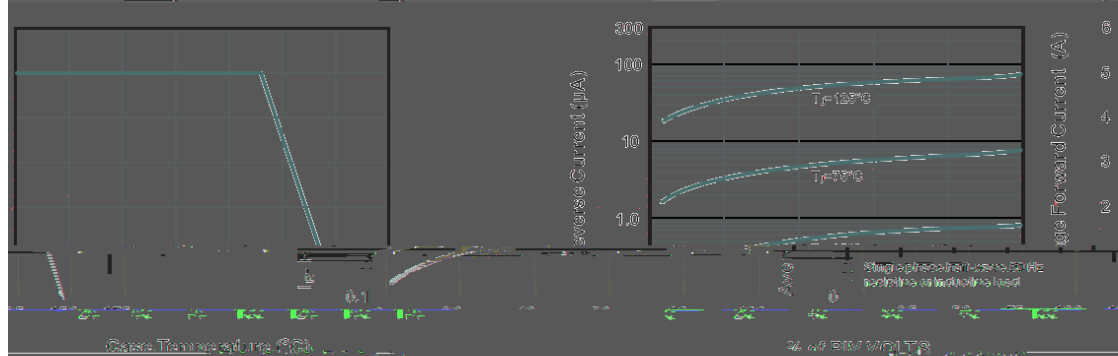


Fig.4 Typical Forward Characteristics

Fig.5 Typical Junction Capacitance

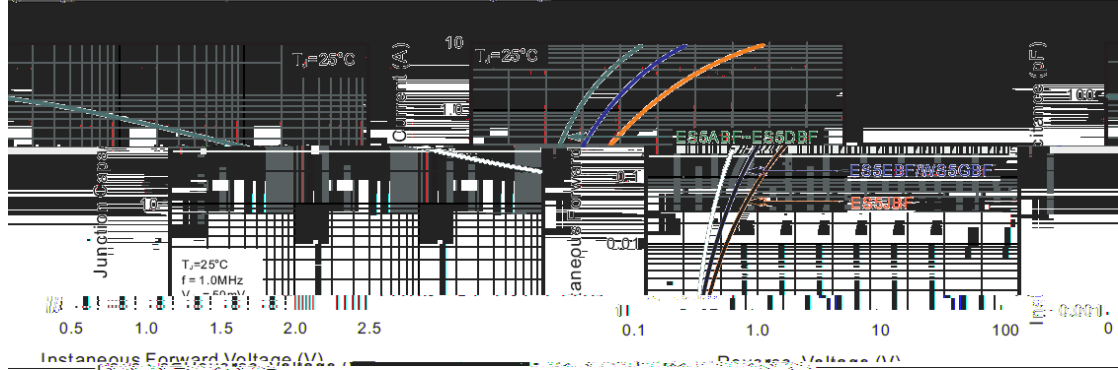
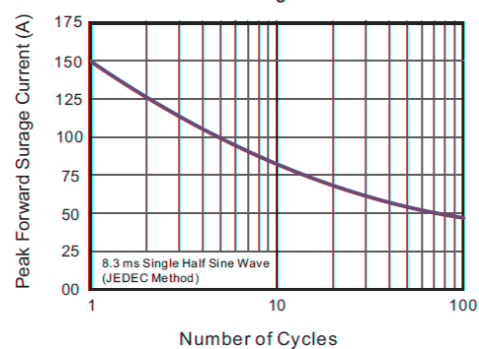
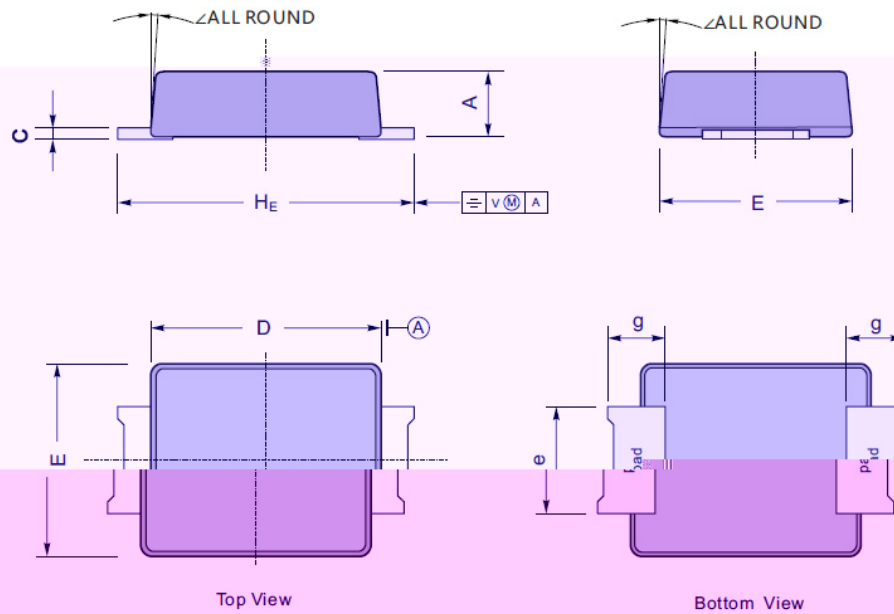


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



SMBT

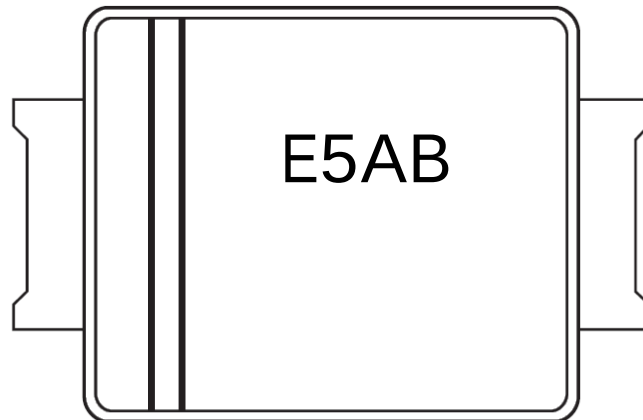


UNIT		A	C	D	E	H _E	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		

Marking

Type number	Marking code
ES5ABF	E5AB
ES5BBF	E5BB
ES5CBF	E5CB





E5AB

1 *

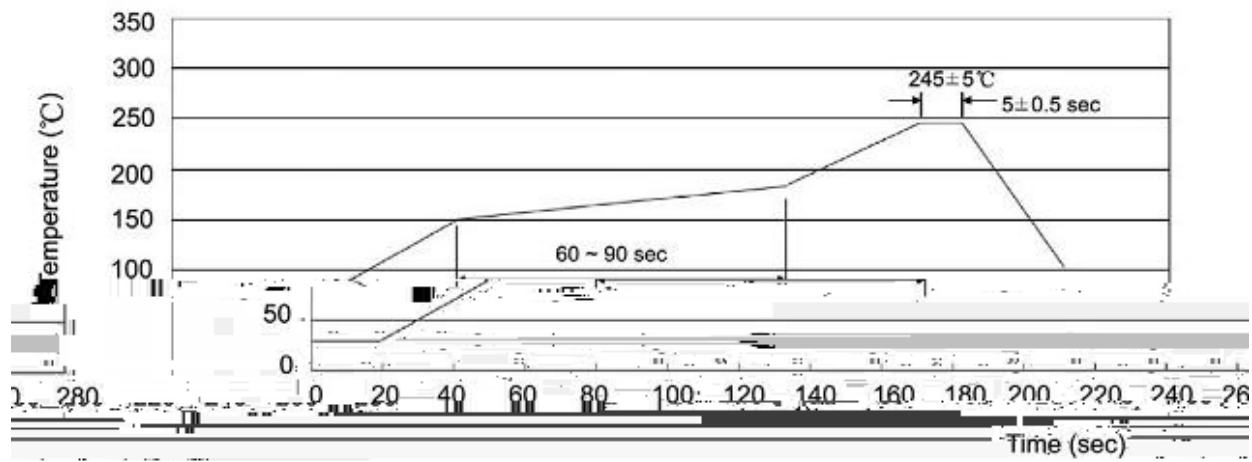
3 *

Note:

E5AB Product Type Code

Lot No. Code The 1st * means:YM Code The last 3 * means:little Lot No
Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |