

Features

- For surface mount applications
- Glass passivated chip junction
- Low profile package
- Easy to pick and place
- Superfast reverse recovery time

SMBF



1.Cathode  2.Anode

Marking Code :

ES3ABF–TN:E3AB
ES3BBF–TN:E3BB
ES3CBF–TN:E3CB
ES3DBF–TN:E3DB
ES3EBF–TN:E3EB
ES3GBF–TN:E3GB
ES3JBF–TN:E3JB

Maximum Ratings and Electrical Characteristics

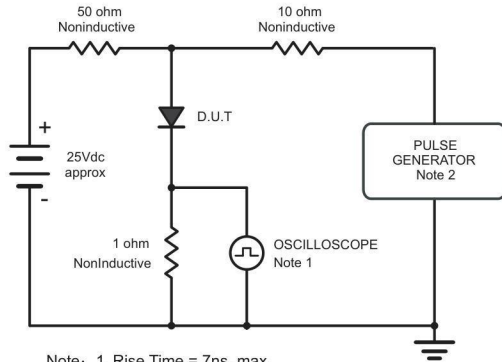
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	ES3ABF –TN	ES3BBF –TN	ES3CBF –TN	ES3DBF –TN	ES3EBF –TN	ES3GBF –TN	ES3JBF –TN	Units
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)}	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	100							A
Maximum Instantaneous Forward Voltage at 3 A	V _F	1.0				1.25		1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25 °C T _A = 125 °C	I _R	5 100							μA
Typical Junction Capacitance ^{Note1}	C _j	35							pF
Typical Thermal Resistance ^{Note2}	R _{θJA} R _{θJC}	45 15							°C/W
Maximum Reverse Recovery Time ^{Note3}	T _{rr}	35							nS
Junction Temperature	T _J	150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

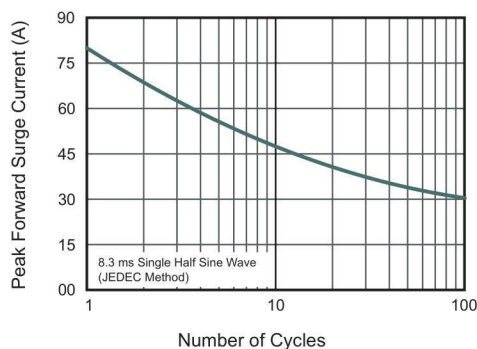
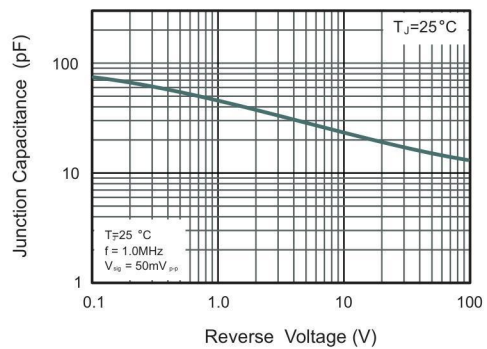
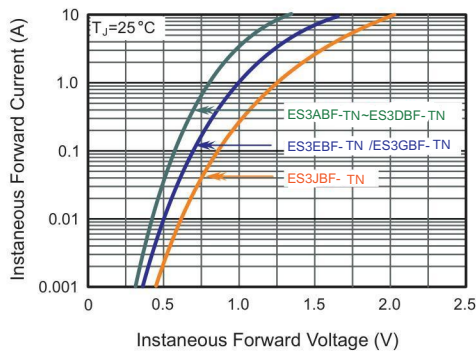
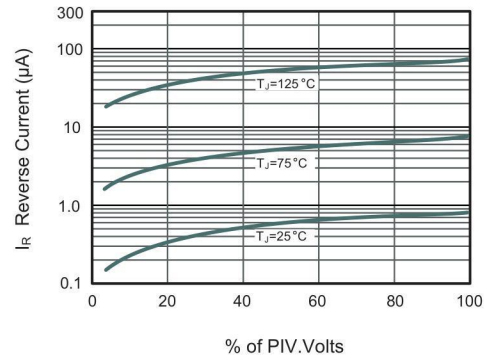
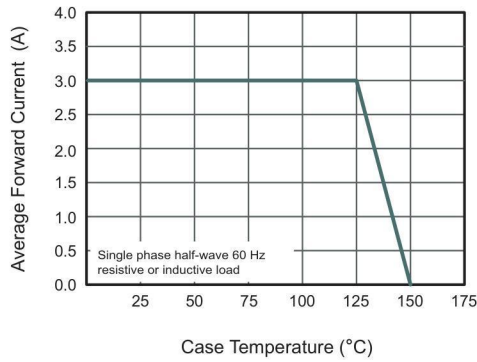
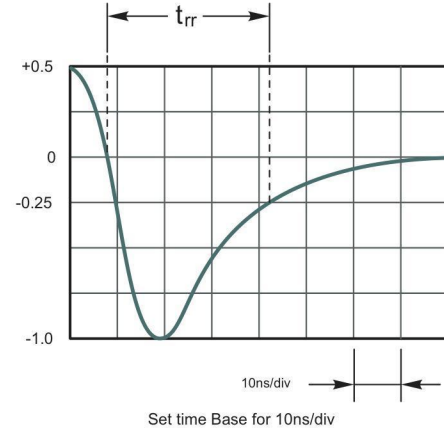
Note:

1. Measured at 1 MHz and applied reverse voltage of 4 V DC.
2. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.
3. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

Typical Characteristic Curves



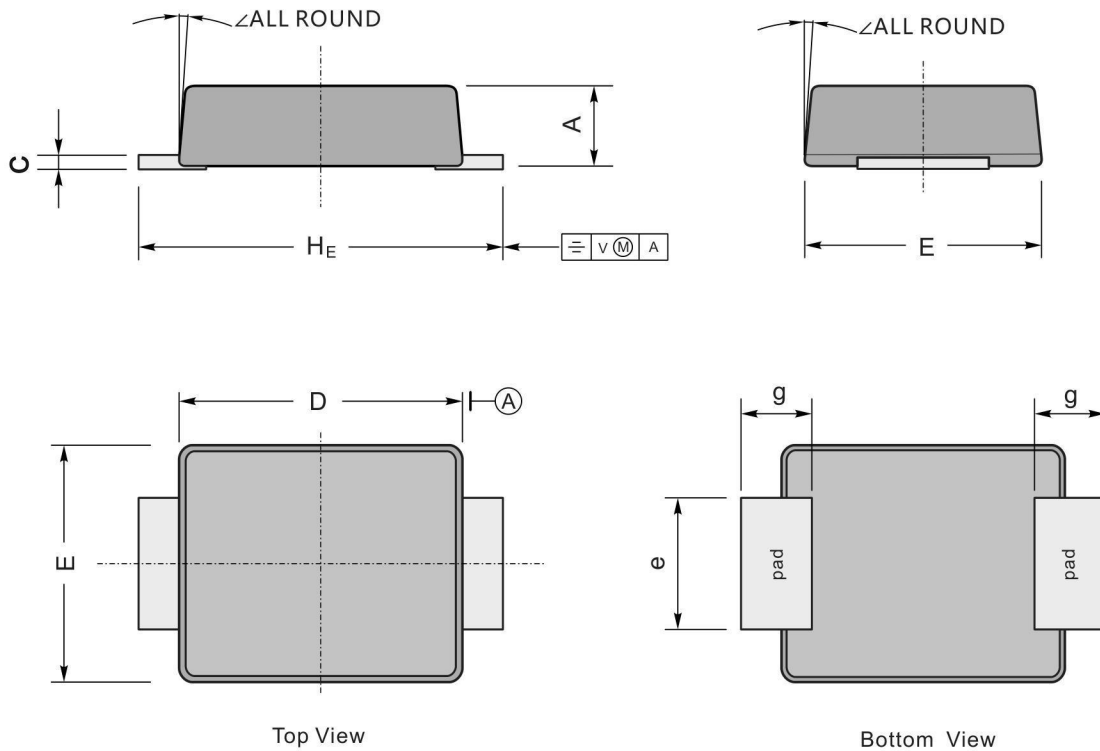
Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.



Package Outline

SMBF

Dimensions in mm



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		