

Surface Mount Superfast Recovery Rectifier
Feature

- 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

Feature

- Case: SMBF
- Terminals: Solderable per MIL-STD-750, Method 2026.
- Approx. Weight: 57mg / 0.002oz

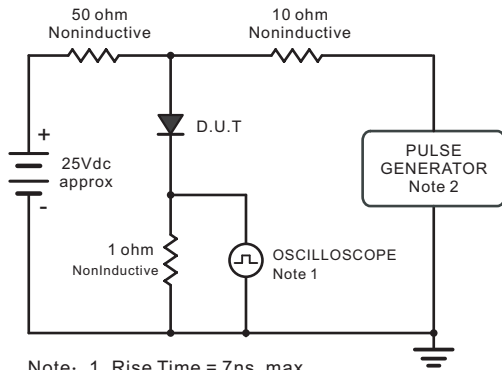
Maximum Ratings and Electrical characteristics

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	Sym bol	PES2 ABF	PES2 BBF	PES2 CBF	PES2 DBF	PES2 EBF	PES2 GBF	PES2 JBF	Unit s
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 TL = 100°C	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load(JEDEC Method)	I_{FSM}	50							A
Maximum Forward Voltage at 2A	V_F	1				1.25		1.65	V
Maximum DC Reverse Current Ta=25°C at Rated DC Blocking Voltage Ta=125°C	I_R	5 100							μA
Typical Junction Capacitance at $V_R=4V$, f=1MHz	C_j	45							PF
Maximum Reverse Recovery Time at $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$	t_{rr}	35							ns
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	65							°C/W
Operating and Storage Temperature Range	T_J, T_S T_G	-55 to +150							°C

Note:

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



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

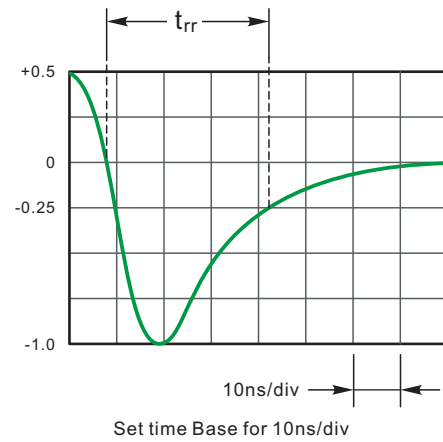


Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

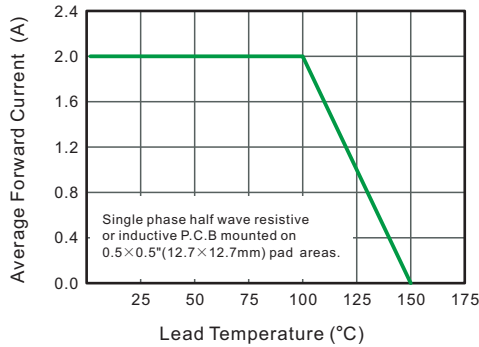


Fig.2 Maximum Average Forward Current Rating

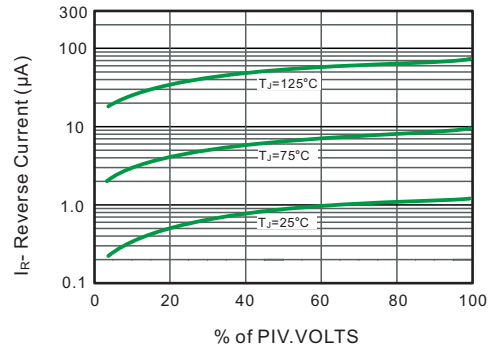


Fig.3 Typical Reverse Characteristics

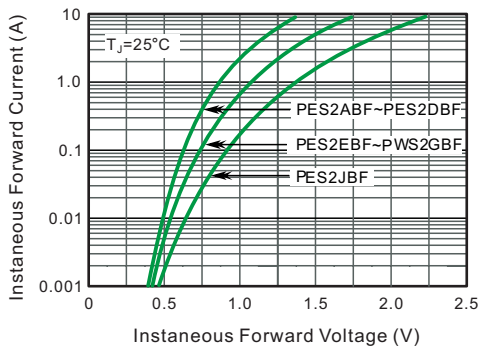


Fig.4 Typical Forward Characteristics

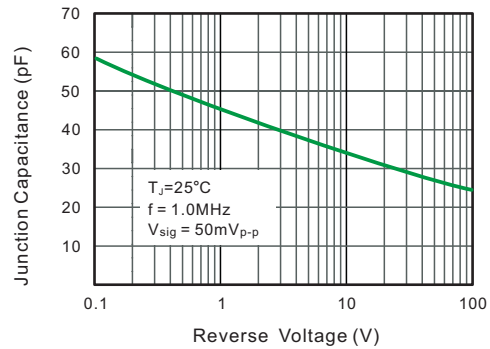


Fig.5 Typical Junction Capacitance

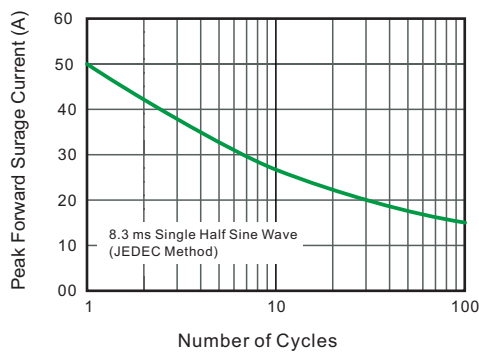
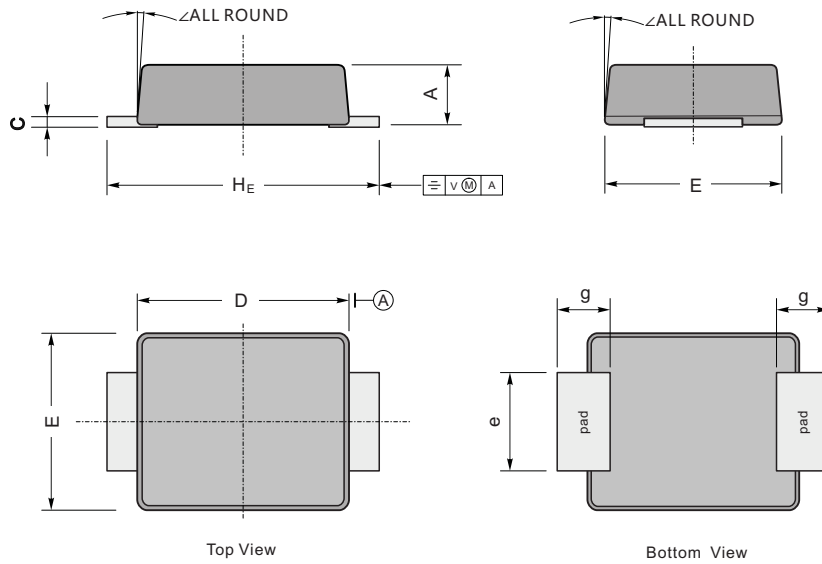


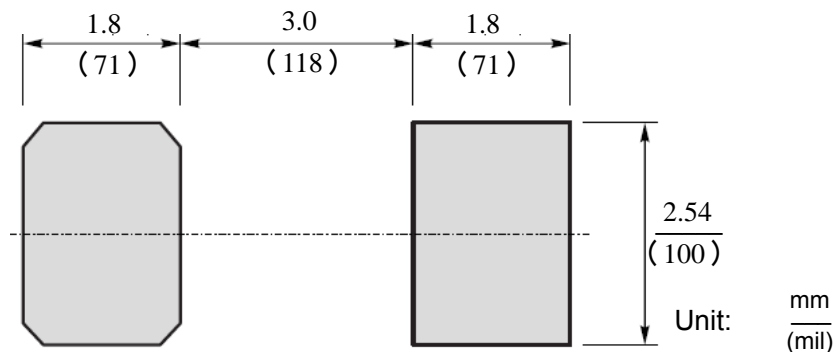
Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

Product dimension (SMBF)



UNIT		A	C	D	E	HE	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		


The recommended mounting pad size



Ordering information

Device	Package	Shipping
PES2ABF~PES2JBF	SMBF (Pb-Free)	5000/ Tape & Reel

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