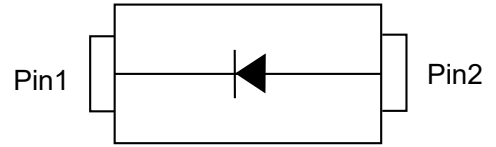


### Feature

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives



### Mechanical Characteristics

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

### Absolute maximum rating@25°C

Parameter	Symbol	PRS3ABF	PRS3BBF	PRS3DBF	PRS3GBF	PRS3JBF	PRS3KBF	PRS3MBF	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c=125\text{ }^\circ\text{C}$	$I_{F(AV)}$	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	80							A
Maximum Forward Voltage at 3A	$V_F$	1.3							V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_R$	5 100							$\mu\text{A}$
Typical Junction Capacitance at $V_R=4\text{V}$ , $f=1\text{MHz}$	$C_J$	40							pF
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$	150				250	500		nS
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	45 15							$^\circ\text{C/W}$
Operation and Storage Temperature Range	$T_J, T_{STG}$	-55~+175							$^\circ\text{C}$

Notes: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .

2.P.C.B. mounted with 2.0"X2.0" (5X5cm) copper pad areas.

Typical Characteristics

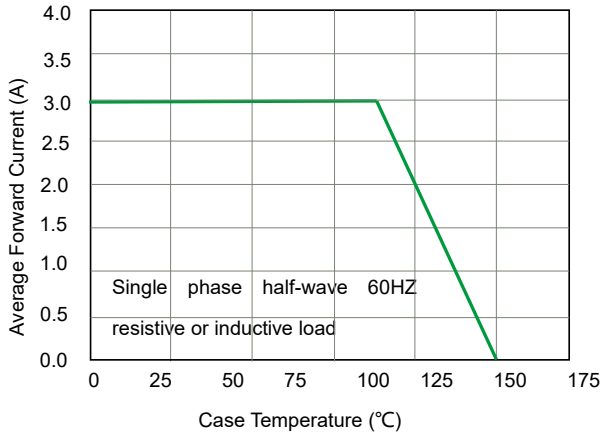


Fig 1. Maximum Average Forward Current Rating

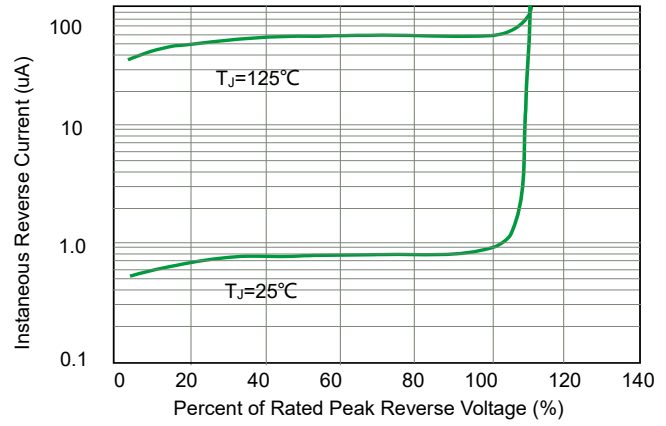


Fig 2. Typical Reverse Characteristics

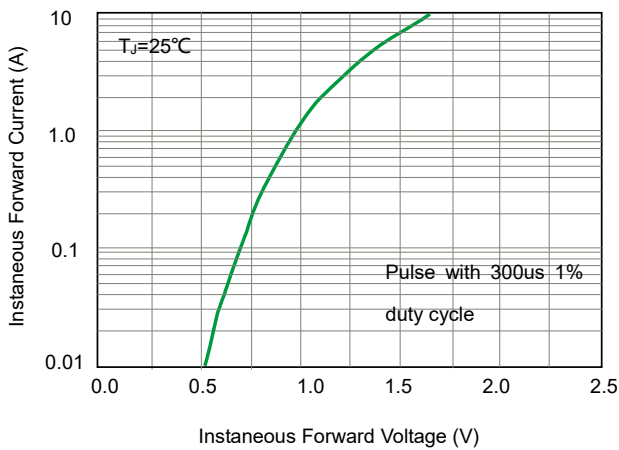


Fig 3. Typical Instantaneous Forward Characteristics

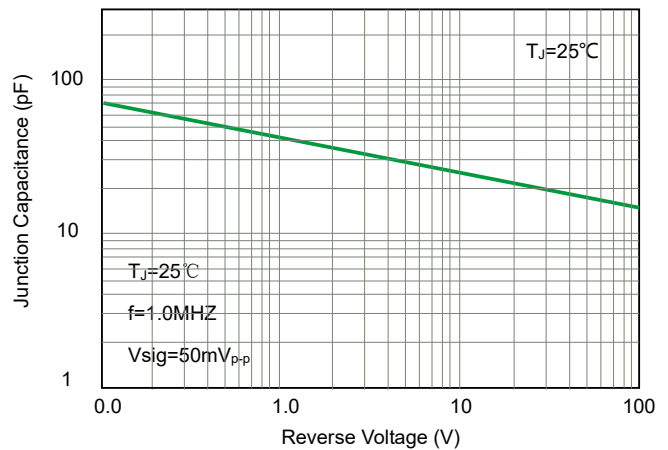


Fig 4. Typical Junction Capacitance

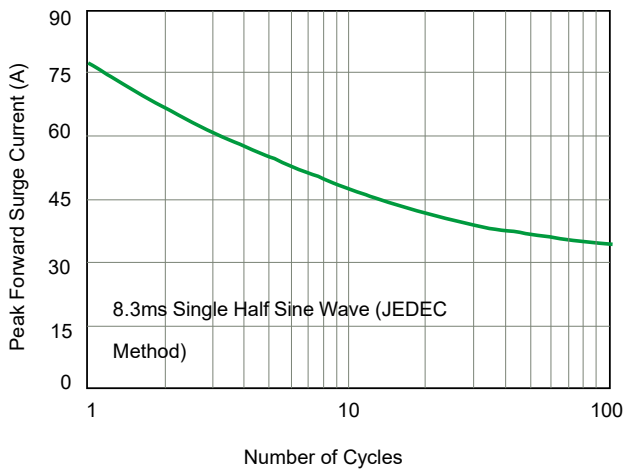
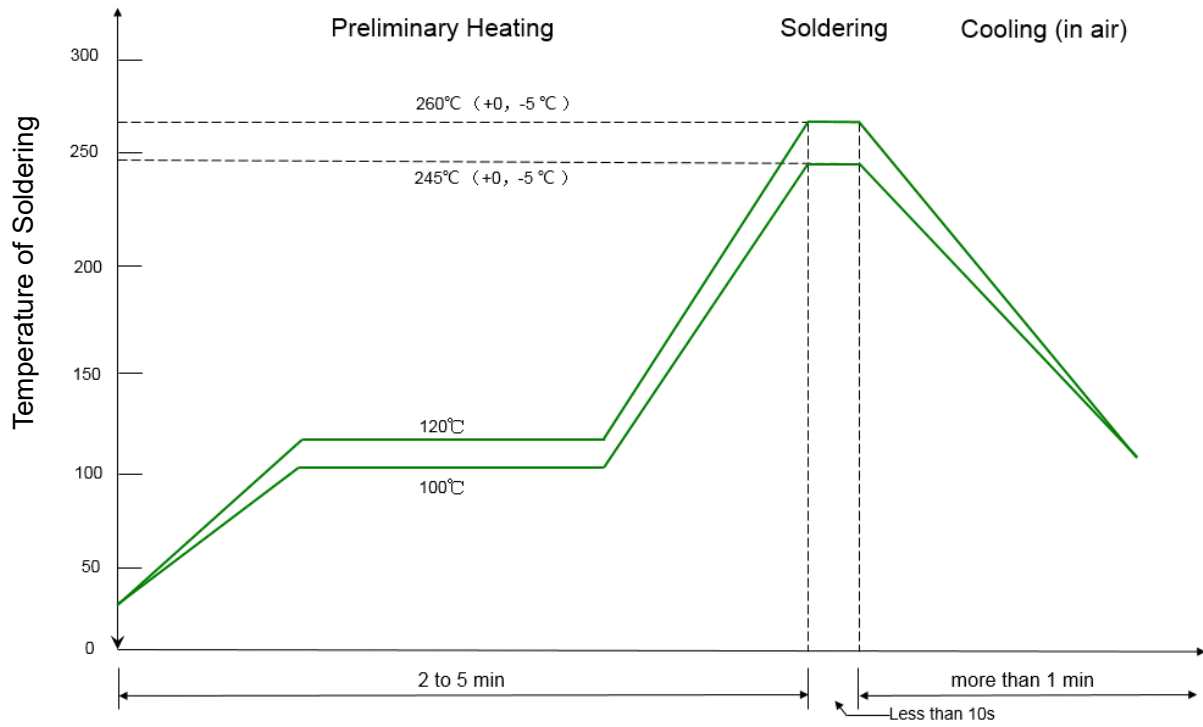


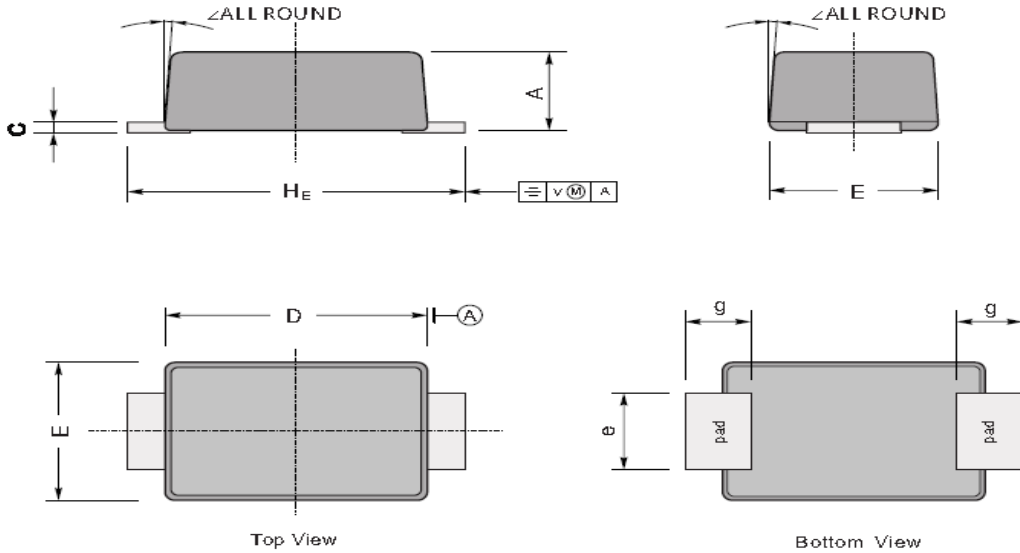
Fig 5. Maximum Non-Repetitive Peak Forward Surge Current

Solder Reflow Recommendation



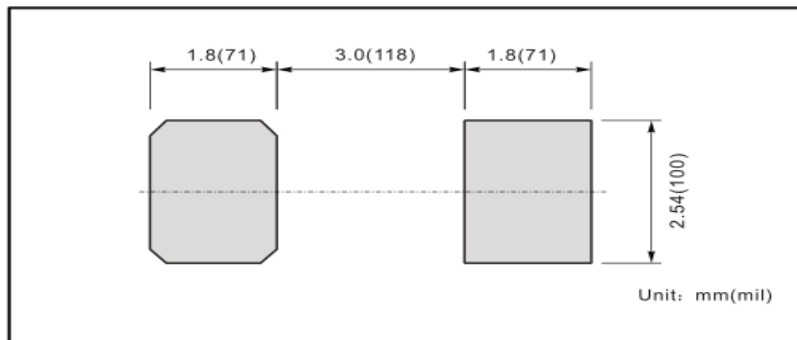
Remark: Pb free for 260°C; Pb for 245°C.

Product dimension (SMBF)



UNIT		A	C	D	E	$H_E$	e	g	$\angle$
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	MPQ
PRS3ABF-PRS3MBF	SMBF (Pb-Free)	5000/ Tape & Reel


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