Prisemi®

PUS2ABF~PUS2MBF
Surface Mount Ultrafast 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%.
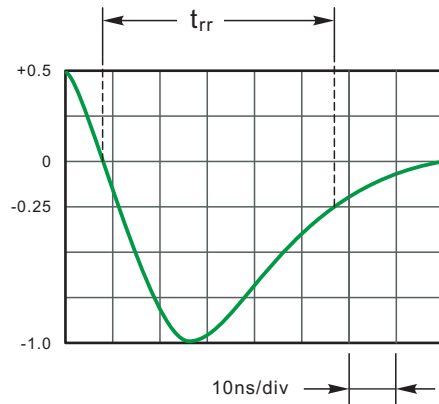
Parameter	Symbol	PUS2 ABF	PUS2 BBF	PUS2 DBF	PUS2 GBF	PUS2 JBF	PUS2 KBF	PUS2 MBF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta = 65°C	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load(JEDEC Method)	I_{FSM}	55				50			A
Maximum Instantaneous Forward Voltage at 2A	V_F	1.0			1.3	1.6			V
Maximum DC Reverse Current Ta=25℃ at Rated DC Blocking Voltage Ta=125℃	I_R	5 100							µA
Typical Junction Capacitance[1]	C_j	60							PF
Maximum Reverse Recovery Time[2]	t_{rr}	50				75			ns
Typical Thermal Resistance [3]	$R_{\theta JA}$ $R_{\theta JL}$	60 20							℃/W
Operating and Storage Temperature Range	T_J, T_S TG	-55 to +150							℃

Note:

1. Measured at 1MHz and applied reverse voltage of 4V D.C

2. Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A

3. P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.
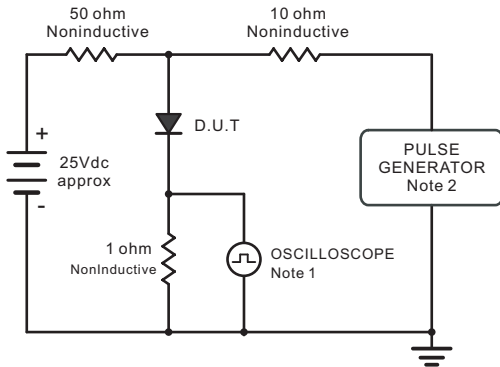
Note：1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Ries Time =10ns, max.
Source Impedance = 50 ohms.

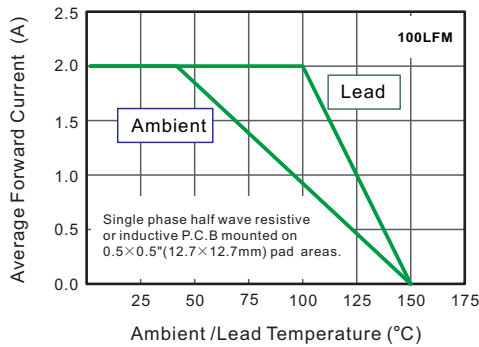**Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram**

Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

Single phase half wave resistive or inductive P.C.B mounted on 0.5×0.5"(12.7×12.7mm) pad areas.
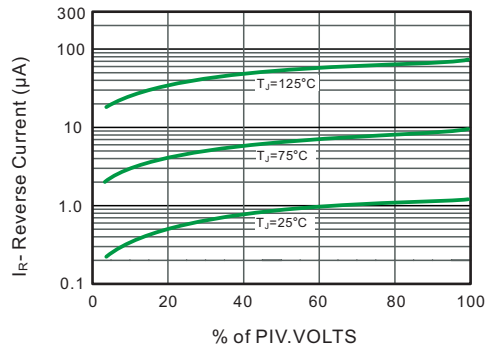
Fig.3 Typical Reverse Characteristics
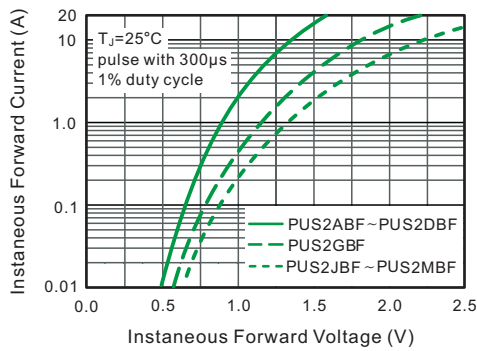
Fig.3 Typical Instaneous Forward Characteristics

T_J=25°C pulse with 300μs 1% duty cycle

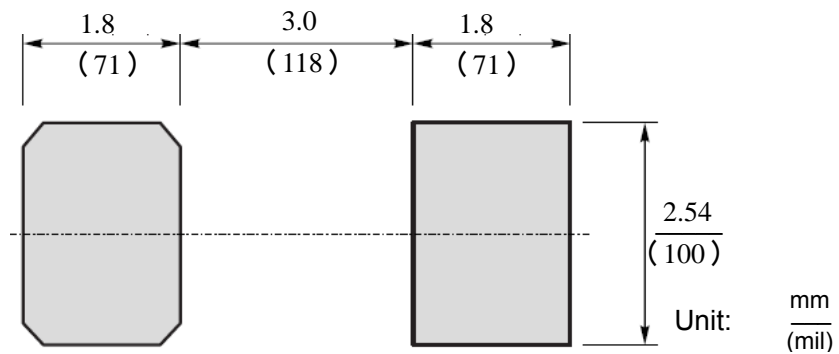PUS2ABF~PUS2DBF
PUS2GBF
PUS2JBF ~ PUS2MBF
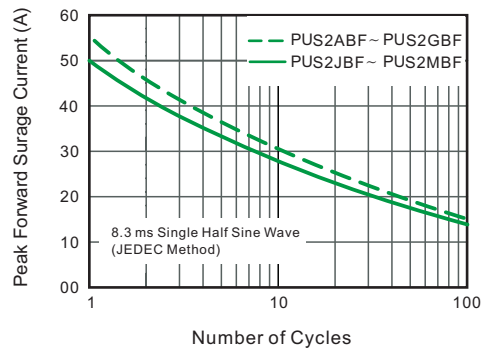
Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

PUS2ABF ~ PUS2GBF
PUS2JBF ~ PUS2MBF

8.3 ms Single Half Sine Wave (JEDEC Method)

Product dimension (SMBF)

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		

The recommended mounting pad size

Ordering information

Device	Package	Shipping
PUS2ABF~PUS2MBF	SMBF (Pb-Free)	5000/ Tape & Reel

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