

## Surface Mount Ultrafast Recovery Rectifier FEATURES

- 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

## MECHANICAL DATA

- 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 current derate by 20 %.

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbols	US2ABF	US2BBF	US2DBF	US2GBF	US2JBF	US2KBF	US2MBF	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 $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms 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 at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	$I_R$					5 100			$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_j$	60							pF
Maximum Reverse Recovery Time <sup>2)</sup>	$t_{rr}$	50				75			ns
Typical Thermal Resistance <sup>3)</sup>	$R_{\theta JA}$ $R_{\theta JL}$					60 20			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^\circ\text{C}$

1) Measured at 1 MHz and applied reverse voltage of 4 V D.C. 2) Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$

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

SHIKE MAKE CONSCIOUS PRODUCT

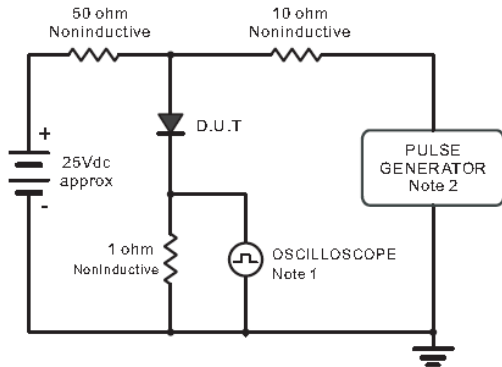
CONSCIOUS PRODUCTS BEGIN WITH CONSCIOUS PEOPLE

REV.07

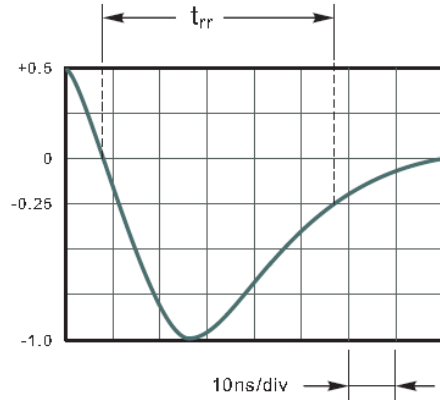


www.shike.tw

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

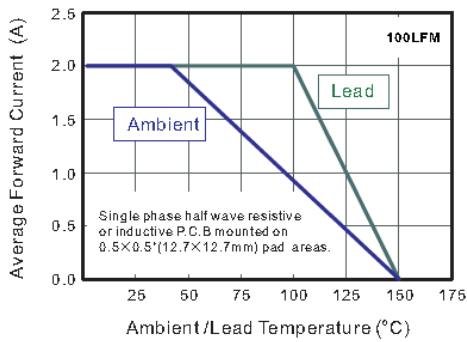


Note: 1. Rise Time = 7ns, max.  
Input Impedance = 1 megohm, 22pF.  
2. Rise Time = 10ns, max.  
Source Impedance = 50 ohms.

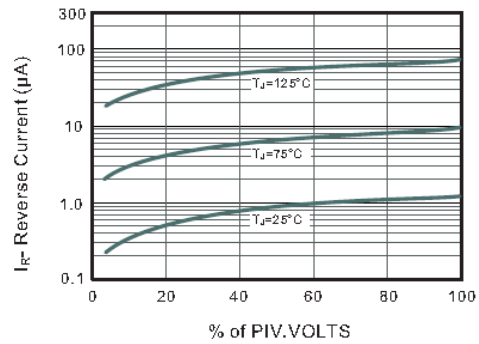


Set time Base for 10ns/div

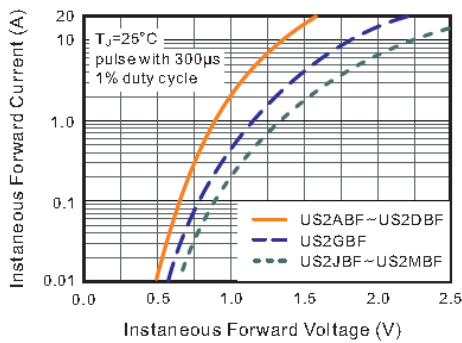
**Fig.2 Maximum Average Forward Current Rating**



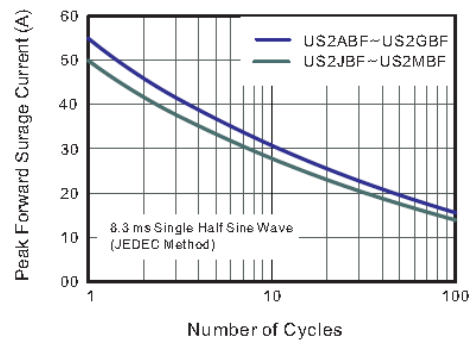
**Fig.3 Typical Reverse Characteristics**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Maximum Non-Repetitive Peak Forward Surge Current**



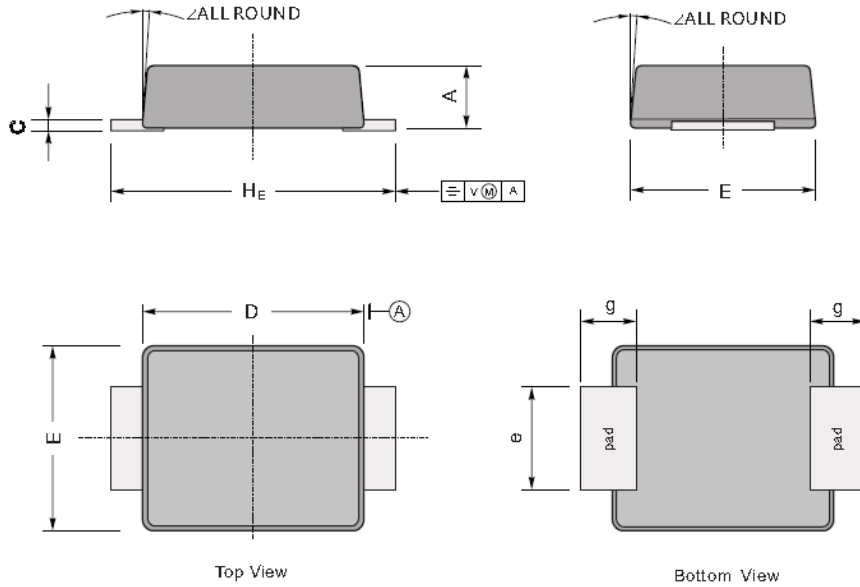
SHIKE MAKE CONSCIOUS PRODUCT  
CONSCIOUS PRODUCTS BEGIN WITH CONSCIOUS PEOPLE



## PACKAGE OUTLINE

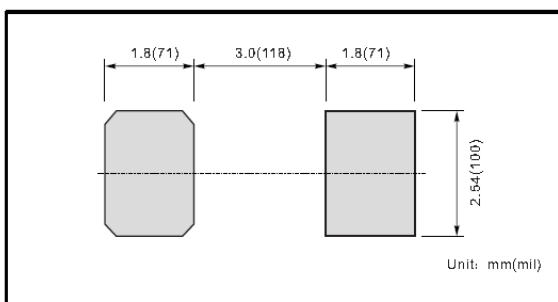
Plastic surface mounted package; 2 leads

SMBF



UNIT		A	C	D	E	H <sub>E</sub>	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



### Marking

Type number	Marking code
US2ABF	U2AB
US2BBF	U2BB
US2DBF	U2DB
US2GBF	U2GB
US2JBF	U2JB
US2KBF	U2KB
US2MBF	U2MB

SHIKE MAKE CONSCIOUS PRODUCT  
CONSCIOUS PRODUCTS BEGIN WITH CONSCIOUS PEOPLE

REV.07



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Rectifiers](#) category:*

*Click to view products by [Shikues](#) manufacturer:*

Other Similar products are found below :

[70HFR40](#) [FR105 R0](#) [RL252-TP](#) [DLA11C-TR-E](#) [DSA17G](#) [150KR30A](#) [1N5397](#) [1N4002G](#) [1N4005-TR](#) [UFS120Je3/TR13](#) [JANS1N6640US](#)  
[481235F](#) [RRE02VS6SGTR](#) [067907F](#) [MS306](#) [70HF40](#) [T110HF60](#) [T85HFL60S02](#) [US2JFL-TP](#) [A1N5404G-G](#) [CRS04\(T5L,TEMQ\)](#)  
[CRS12\(T5L,TEMQ\)](#) [ACGRB207-HF](#) [CLH07\(TE16L,Q\)](#) [CLH03\(TE16L,Q\)](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [NTE6356](#) [NTE6359](#) [85HFR60](#)  
[40HFR60](#) [70HF120](#) [85HFR80](#) [D126A45C](#) [SCF7500](#) [D251N08B](#) [SCHJ22.5K](#) [SM100](#) [SCPA2](#) [SDHD5K](#) [VS-12FL100S10](#) [ACGRA4001-](#)  
[HF](#) [ACURA107-HF](#) [D1821SH45T PR](#) [D1251S45T](#) [NTE6358](#) [NTE5850](#) [NTE5819](#) [NTE5837](#) [NTE5892](#)