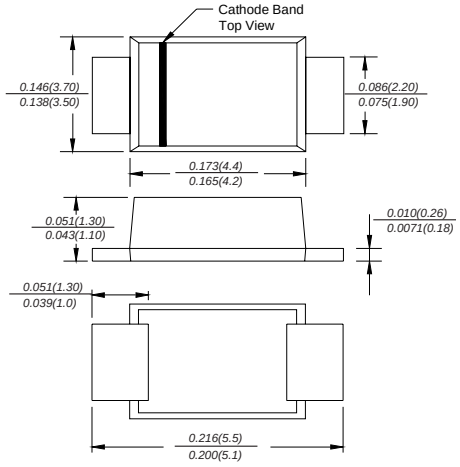
US2ABF THRU US2MBF

SURFACE MOUNT ULTRAFAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Amperes

SMBF



Dimensions in inches and (millimeters)

FEATURES

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

MECHANICAL DATA

Case: JEDEC SMBF molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026
Mounting Position: Any
Weight:57mg/0.002oz

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

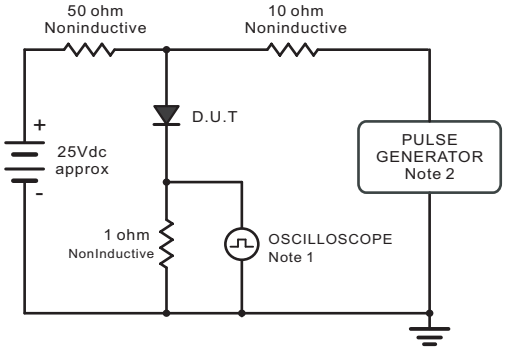
Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

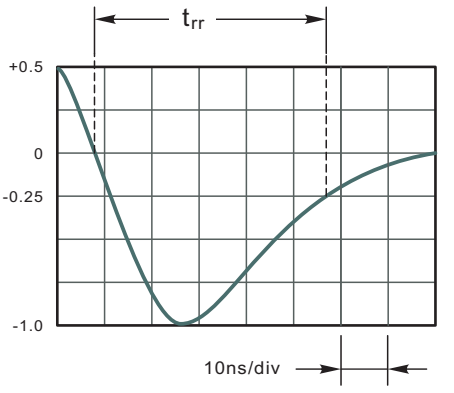
MDD Catalog Number	*SYMBOLS*	US2ABF	US2BBF	US2DBF	US2GBF	US2JBF	US2KBF	US2MBF	UNITS
Marking code		U2AB	U2BB	U2DB	U2GB	U2JB	U2KB	U2MB	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T_L=65℃	$I_{(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							Amps
Maximum instantaneous forward voltage at 2.0A	V_F	1.0			1.3	1.6			Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	5.0 100.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				75			ns
Typical junction capacitance (NOTE 2)	C_J	60							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	60 20							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							°C

Note:1.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.P.C.B. mounted with 0.5x0.5”(12.7x12.7mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES US2ABF THRU US2MBF

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram





Set time Base for 10ns/div

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

Fig.2 Maximum Average Forward Current Rating

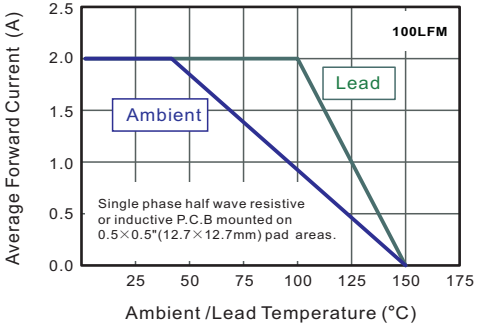


Fig.3 Typical Reverse Characteristics

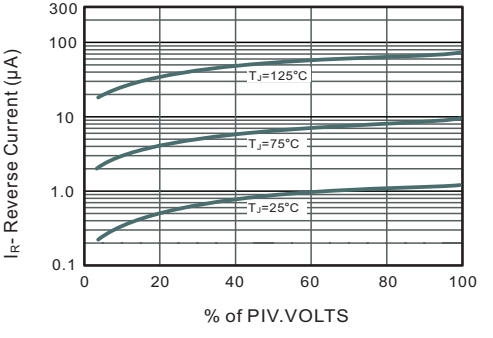


Fig.3 Typical Instaneous Forward Characteristics

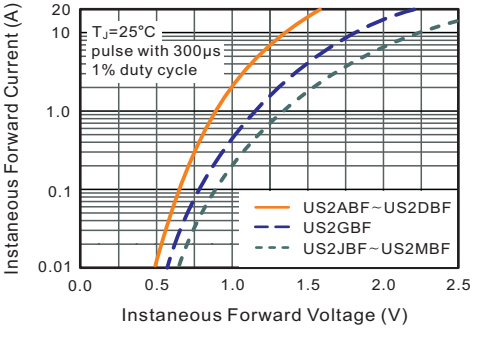
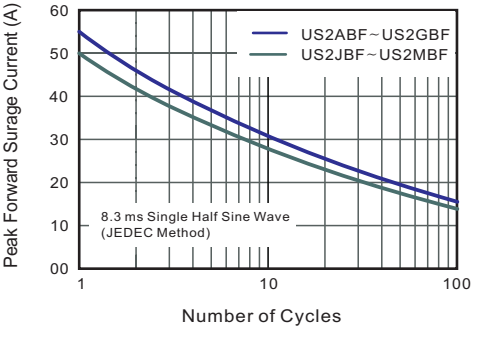


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!