

US3ABF THRU US3MBF-HAF

Surface Mount Fast Recovery Rectifier

Reverse Voltage - 50 to 1000 V

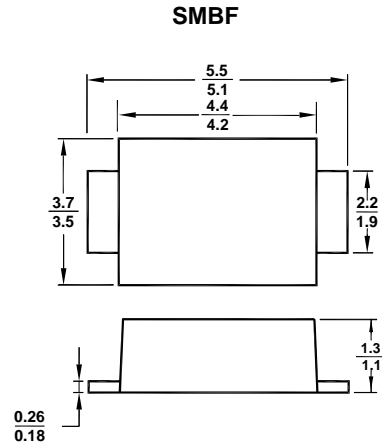
Forward Current - 3 A

Features

- Glass Passivated Chip Junction
- For surface mounted applications
- Low profile package
- Fast reverse recovery time
- Halogen and Antimony Free(HAF), RoHS compliant

Mechanical Data

- **Case:** SMBF
- **Terminals:** Solderable per MIL-STD-750, Method 2026



All Dimensions in mm

Absolute Maximum Ratings and 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%.

Parameter	Symbols	US3ABF	US3BBF	US3DBF	US3GBF	US3JBF	US3KBF	US3MBF	Units
	Marking	U3AB	U3BB	U3DB	U3GB	U3JB	U3KB	U3MB	-
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 $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	100							A
Maximum Forward Voltage at 3 A	V_F	1	1.3	1.6					V
Maximum Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	5				100			μA
Typical Junction Capacitance at $V_R = 4\text{ V}$, $f = 1\text{ MHz}$	C_j	75							pF
Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$	t_{rr}	50				75			ns
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	55				16			$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_j , T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm²) copper pad areas.

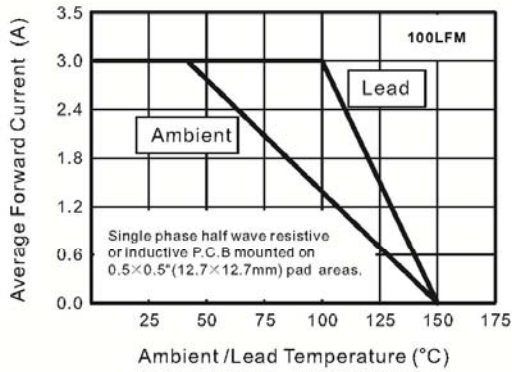
TOP DYNAMIC



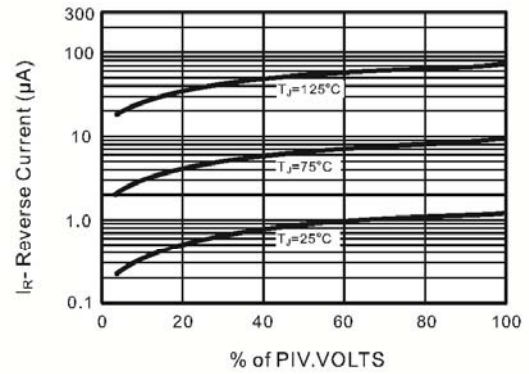
ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 50114012
 OHSAS 18001 : 2007 Certificate No. 0513150006
 IECQ QC 080000 Certificate No. E041100014002

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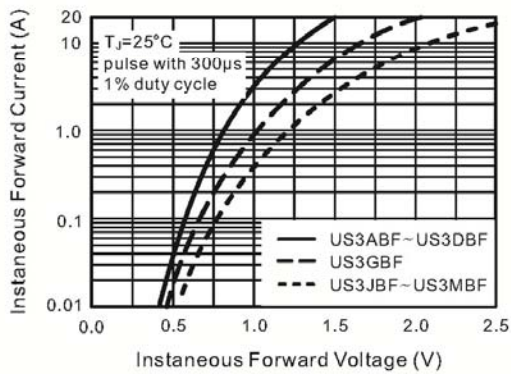
Maximum Average Forward Current Rating



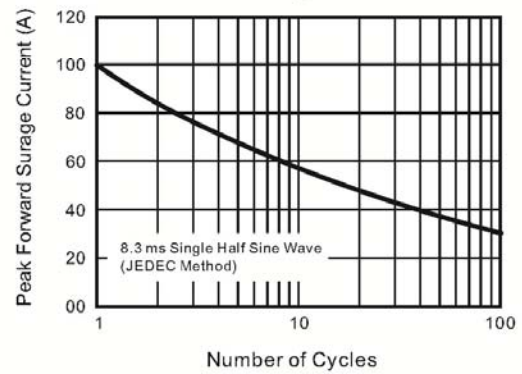
Typical Reverse Characteristics



Typical Instaneous Forward Characteristics



Maximum Non-Repetitive Peak Forward Surge Current



TOP DYNAMIC

