

US2AF THRU US2MF

Surface Mount Ultrafast Recovery Rectifier

Reverse Voltage – 50 to 1000 V

Forward Current – 2 A

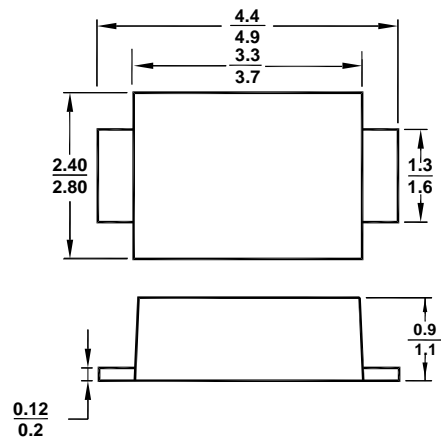
Features

- Glass Passivated Chip Junction
- For surface mount applications
- Low profile package
- Easy pick and place

Mechanical Data

- **Case:** SMAF
- **Terminals:** Solderable per MIL-STD-750, method 2026

SMAF



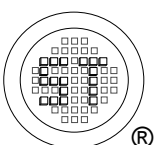
All Dimensions in mm

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%.

Parameter	Symbols	US2AF	US2BF	US2DF	US2GF	US2JF	US2KF	US2MF	Units
	Marking	US2A	US2B	US2D	US2G	US2J	US2K	US2M	-
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	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Forward Voltage at 2 A	V_F	1		1.3		1.65			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a = 25^\circ\text{C}$		5		$T_a = 125^\circ\text{C}$			μA
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⁾	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							$^\circ\text{C}$

¹⁾ P.C.B. mounted with 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.



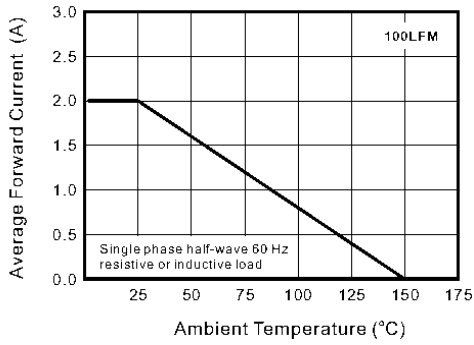
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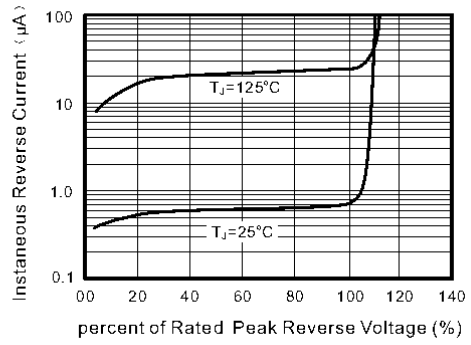
Dated: 04/07/2016 JD Rev: 04

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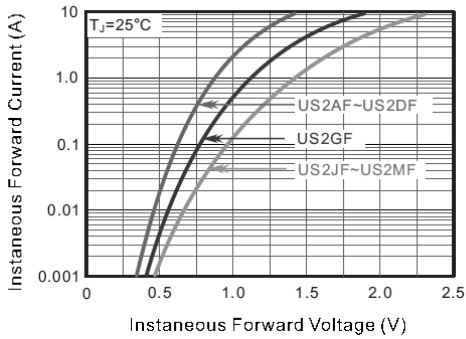
Forward Current Derating Curve



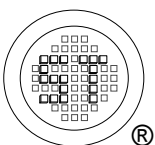
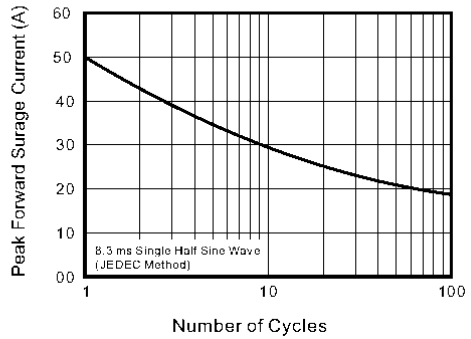
Typical Reverse Characteristics



Typical Forward Characteristics



Maximum Non-Repetitive Peak Forward Surge Current



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