

US1AF THRU US1MF-HAF

Surface Mount Ultrafast Recovery Rectifier

Reverse Voltage – 50 to 1000 V

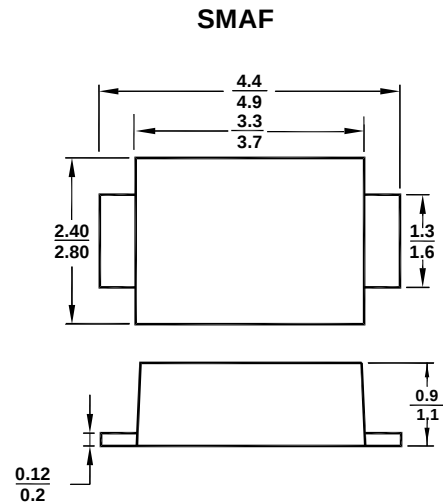
Forward Current – 1 A

Features

- Glass Passivated Chip Junction
- For surface mount applications
- Low profile package
- Easy to pick and place
- High efficiency
- Halogen and Antimony Free(HAF), RoHS compliant

Mechanical Data

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



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	US1AF	US1BF	US1DF	US1GF	US1JF	US1KF	US1MF	Units
	Marking	US1A	US1B	US1D	US1G	US1J	US1K	US1M	-
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)}	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
Maximum Forward Voltage at 1 A	V _F	1			1.3	1.65			V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _a = 25°C T _a = 125°C	I _R	5 100							μA
Maximum Reverse Recovery Time at I _F = 0.5 A, I _R = 1 A, I _{rr} = 0.25 A	t _{rr}	50				75			ns
Typical Thermal Resistance ¹⁾	R _{θJA}	75							°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	- 55 to + 150							°C

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

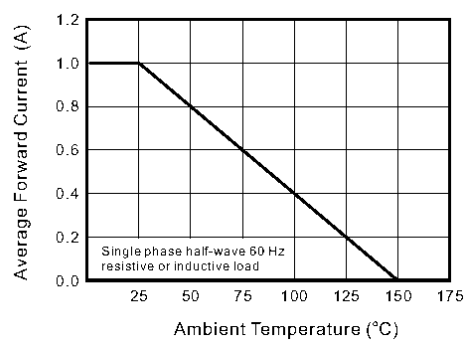
TOP DYNAMIC



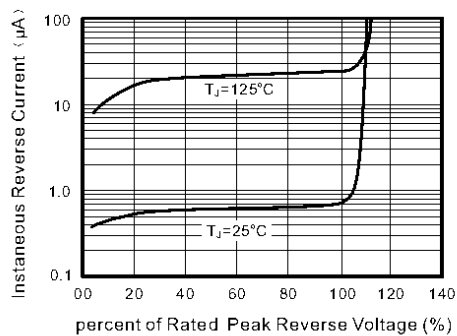
Dated: 04/07/2016 JD Rev: 04

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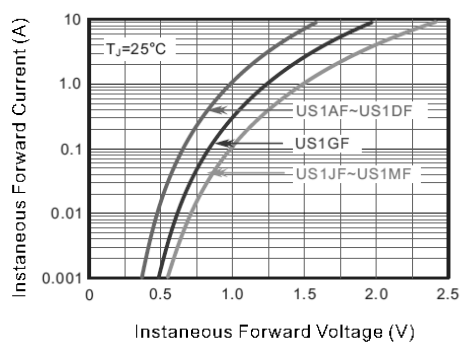
Forward Current Derating Curve



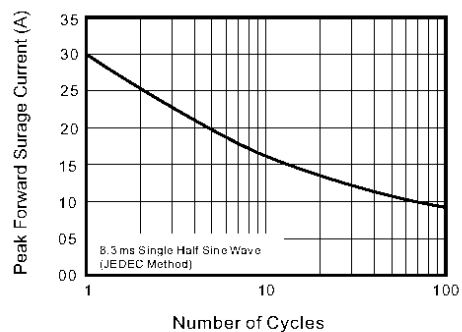
Typical Reverse Characteristics



Typical Forward Characteristics



Maximum Non-Repetitive Peak Forward Surge Current



TOP DYNAMIC