

US1A THRU US1M

SURFACE MOUNT ULTRAFAST RECOVERY RECTIFIER

Reverse Voltage – 50 to 1000 V

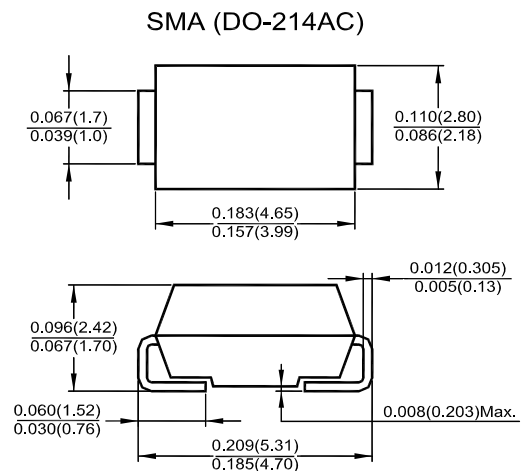
Forward Current – 1 A

Features

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0

Mechanical Data

- **Case:** SMA (DO-214AC) molded plastic
- **Terminals:** Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
- **Polarity:** Color band denotes cathode end



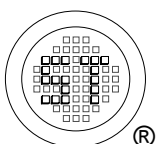
Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

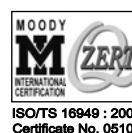
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	US1A	US1B	US1D	US1G	US1J	US1K	US1M	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 _L = 100 °C	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			1.4	1.7			V
Maximum DC Reverse Current T _A = 25 °C at Rated DC Blocking Voltage T _A = 100 °C	I _R	5 100							µA
Typical Junction Capacitance at 4 V, 1 MHz	C _J	17							pF
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}	50							°C/W
Operating and Storage Temperature Range	T _J ,T _S	- 55 to + 150							°C

¹⁾ Mounted on P.C.B. with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

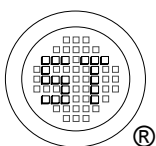
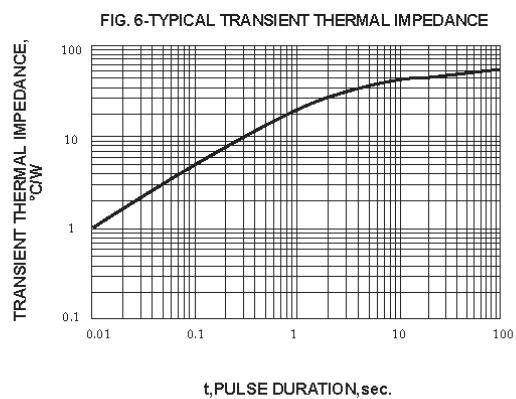
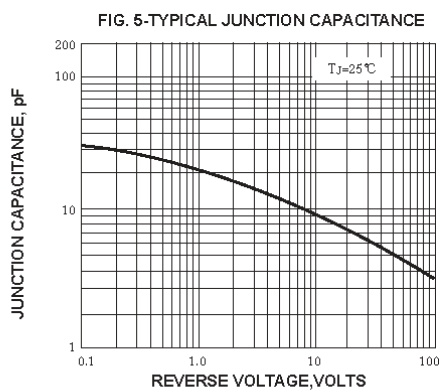
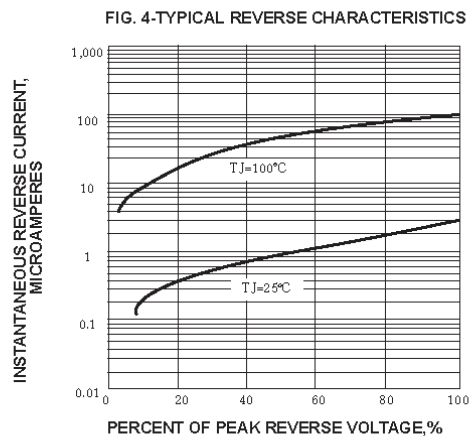
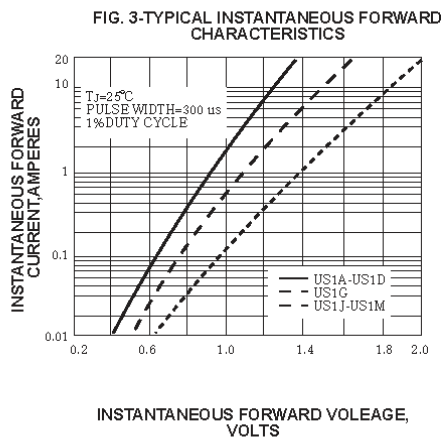
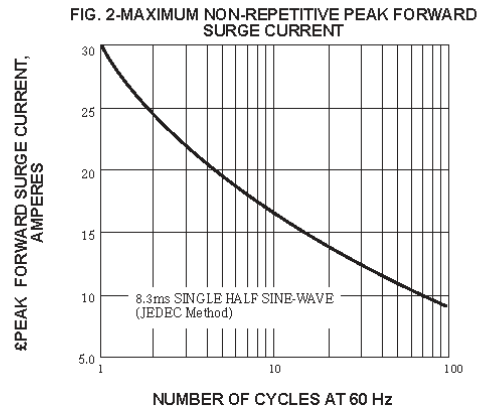
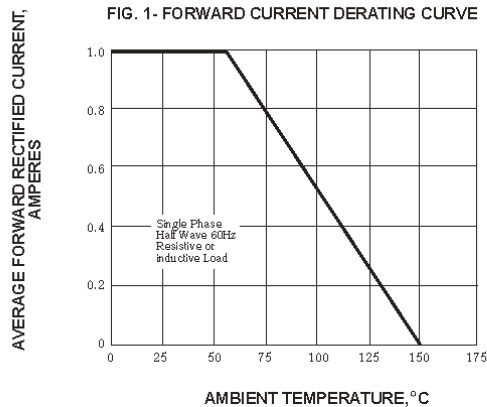


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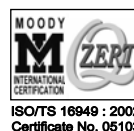


Dated : 14/04/2008 H

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