



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

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	<p>RECTIFIER SPECIALISTS</p>	<p>US1A THRU US1M</p>
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TECHNICAL SPECIFICATIONS OF SURFACE MOUNT ULTRA FAST RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts


CURRENT - 1.0 Ampere

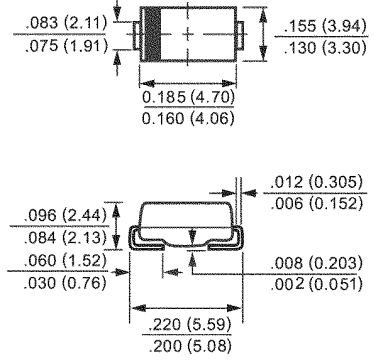
FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated solderable per MIL-STD-202E, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.33 gram


SMA (DO-214AC)



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%.

	SYMBOL	US1A	US1B	US1D	US1G	US1J	US1K	US1M	UNITS
Maximum Recurrent 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 TA = 50°C	I _O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	V _F	1.0		1.4		1.7		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	5.0							uAmps
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 100°C		100							uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	50			100			nSec	
Typical Junction Capacitance (Note 2)	C _J	17							pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150							°C

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts



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RATING AND CHARACTERISTIC CURVES (US1A THRU US1M)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

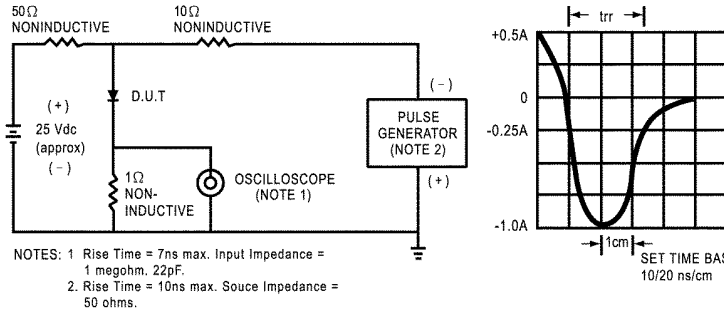


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

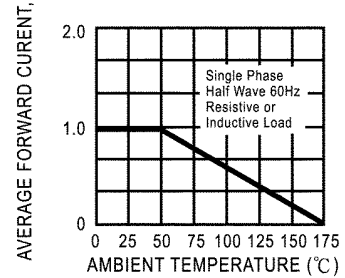


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

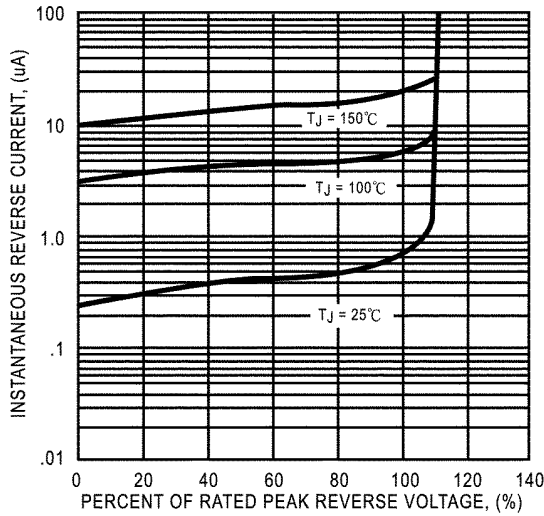


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

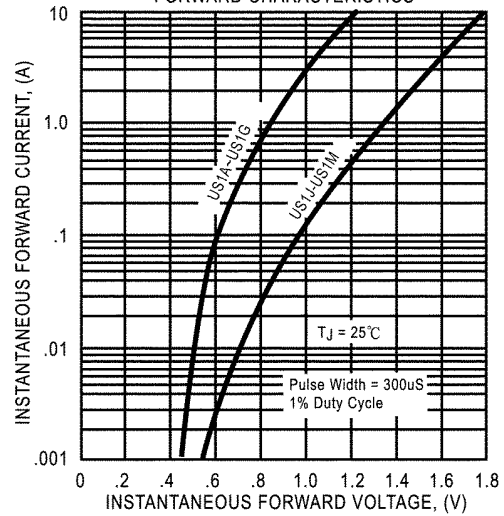


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

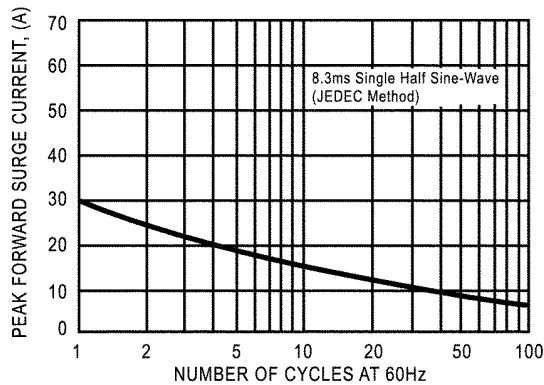


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

