



UF3A THRU UF3M

SURFACE MOUNT FAST SWITCHING RECTIFIER

Voltage Range 50 to 1000 Volts
Current 3.0 Amperes

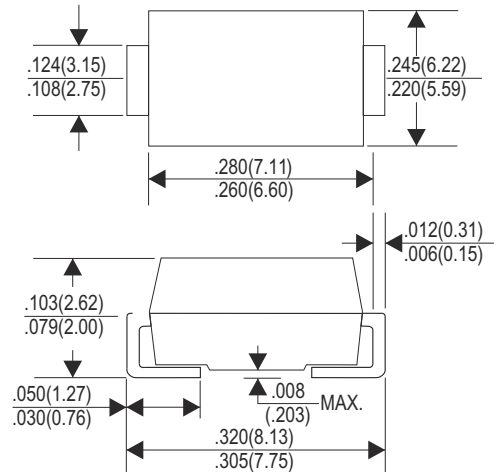
Features

- * Low forward voltage drop
- * Plastic material used carries Underwriters Laboratory Classification 94V-0
- * For surface mounted application
- * Glass passivated junction
- * Built-in strain relief
- * Ultrafast recovery times for high efficiency
- * High temperature soldering: 250°C/10 seconds at terminals

Mechanical Data

- * Case: Molded plastic
- * Terminals: Solder plated
- * Polarity: Indicated by cathode band
- * Packing: 12mm tape
- * Weight: 0.021 gram

DO-214AB(SMC)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	UF3A	UF3B	UF3D	UF3G	UF3J	UF3K	UF3M	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_J = 75^\circ\text{C}$	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) $T_A = 55^\circ\text{C}$	100.0							A
Maximum Instantaneous Forward Voltage @ 3.0A	1.0		1.4		1.7			V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$	10.0							uA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	300							uA
Maximum Thermal Resistance (Note1) $T_J = 25^\circ\text{C}$	50.0				100.0			uS
Typical Junction capacitance (Note2)	75.0				63			pF
Maximum Thermal Resistance (Note3)	15							°C
Operating and Storage Temperature Range	-50 to +150							°C

Notes:

1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1 MHz and Applied VR = 4.0 Volts.
3. 8.0mm² (.13mm thick) land areas

[Http://www.upm.com.tw](http://www.upm.com.tw)

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RATING AND CHARACTERISTIC CURVES (UF3A THRU UF3M)

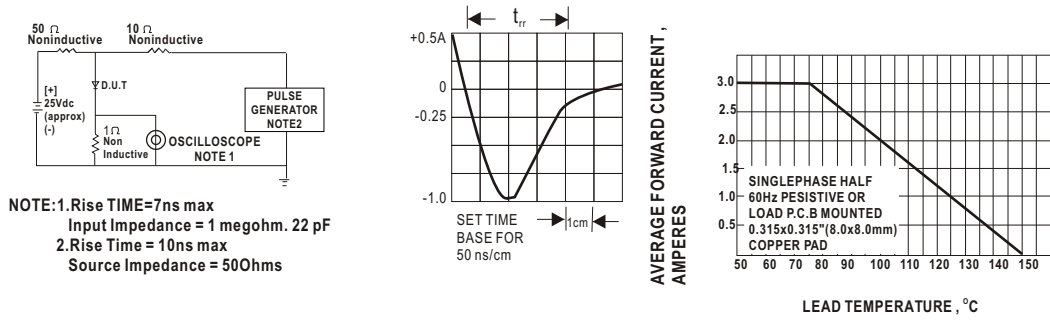


Fig.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

FIG. 2 - MAXIMUM AVERAGE FORWARD CURRENT RATING

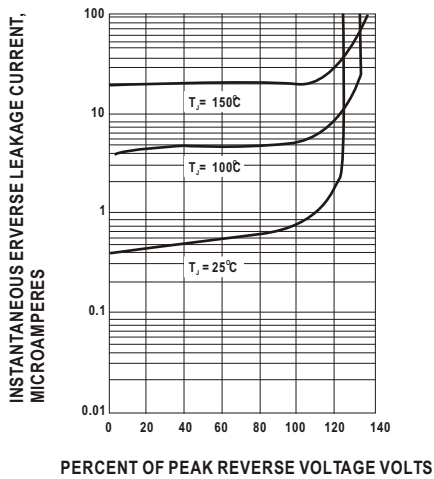


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

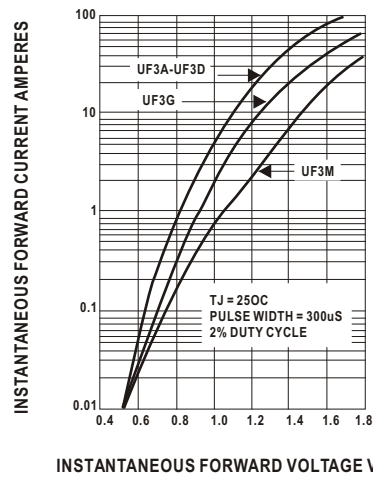


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

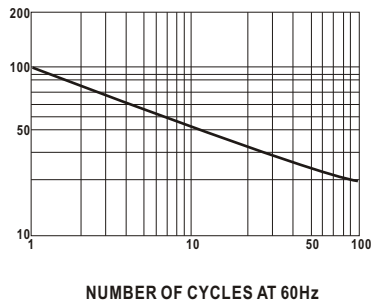


FIG. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

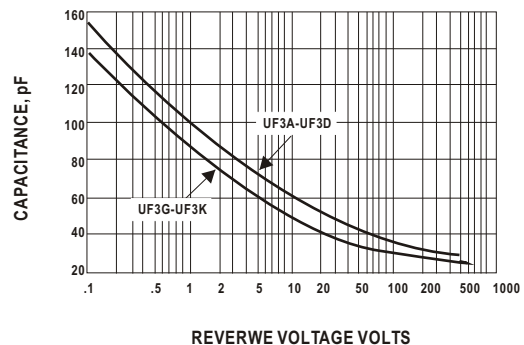


FIG. 6 - TYPICAL JUNCTION CAPACITANCE