



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

UF3A
THRU
UF3M

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT ULTRA FAST RECTIFIER
VOLTAGE RANGE 50 to 1000 Volts **CURRENT 3.0 Amperes**

FEATURES

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

MECHANICAL DATA

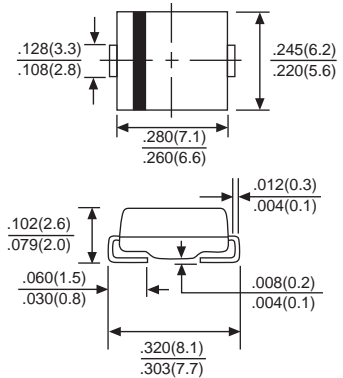
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.093 gram

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%.



SMC (DO-214AB)



Dimensions in inches and (millimeters)

	SYMBOL	UF3A	UF3B	UF3D	UF3G	UF3J	UF3K	UF3M	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 T _A = 55°C	I _O	3.0							Amps		
Peak Forward Surge Current I _{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100							Amps		
Maximum Forward Voltage at 3.0A DC	V _F	1.0		1.3		1.7			Volts		
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@T _A = 25°C								μAmps	
		@T _A = 100°C									
Maximum Reverse Recovery Time (Note 3)	t _{rr}	50				100				nSec	
Typical Thermal Resistance (Note 2)	R _{θJL}	10									pF
Typical Junction Capacitance (Note 1)	C _J	60								°C/W	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175								°C	

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.
 2. Thermal Resistance (Junction to Ambient), 0.2x0.2in² (5x5mm²) copper pads to each terminal.
 3. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

RATING AND CHARACTERISTIC CURVES (UF3A THRU UF3M)

FIG.1
TYPICAL FORWARD CURRENT DERATING CURVE

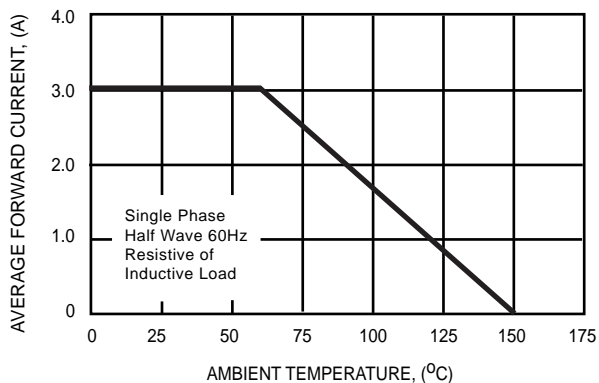


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

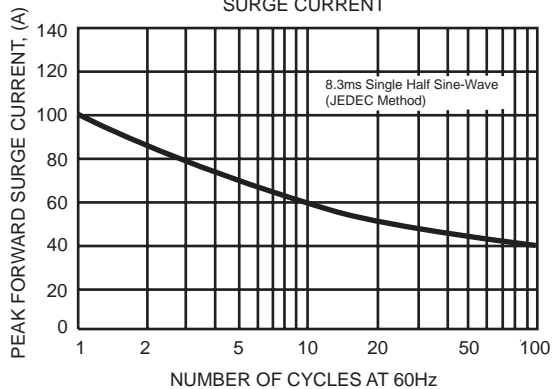


FIG. 3
TYPICAL REVERSE CHARACTERISTICS

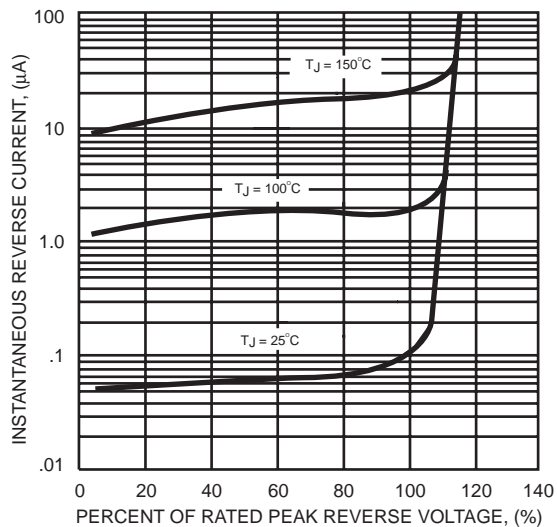
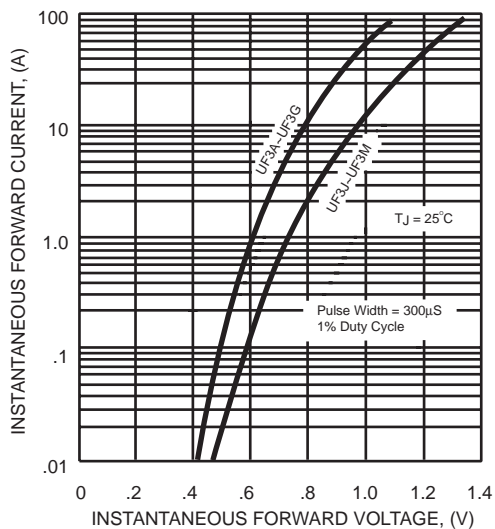


FIG. 4
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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