

High Efficiency Rectifier **multicomp** PRO



Features

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

Case	: JEDEC DO-41 molded plastic
Polarity	: Colour band denotes cathode
Weight	: 0.012 ounces, 0.34 grams
Mounting Position	: Any
Reverse Voltage	: 50 to 1000 Volts
Forward Current	: 1 Ampere

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Characteristics	Symbol	UF4001	UF4002	UF4003	UF4005	UF4007	UF4008	Unit
Max. Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	800	1000	V
Max. RMS Voltage	V _{RMS}	35	70	140	280	560	700	V
Max. DC Blocking Voltage	V _{DC}	50	100	200	400	800	1000	V
Max. Average Forward Rectified Current @T _A = 75°C	I _(AV)				1.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}				30			A
Peak Forward Voltage at 1A DC	V _F		1		1.3		1.7	V
Maximum DC Reverse Current @T _J = 25°C at Rated DC Blocking Voltage @T _J = 100°C	I _R			5		100		µA
Maximum Reverse Recovery Time (Note 1)	T _{RR}		50		75			nS
Typical Junction Capacitance (Note 2)	C _J		20		10			pF
Typical Thermal Resistance (Note 3)	R _{θJA}		25					°C/W
Operating Temperature Range	T _J				-55 to +150			°C
Storage Temperature Range	T _{STG}							

Notes : 1. Measured with I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A
2. Measured at 1MHz and applied reverse voltage of 4V DC
3. Thermal resistance junction to ambient.
4. The typical data above is for reference only

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Rating and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

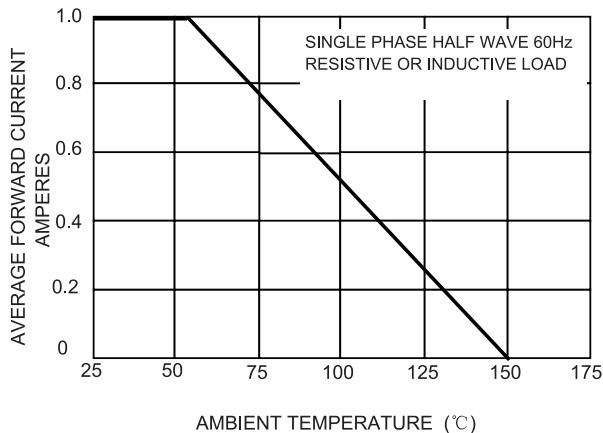


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

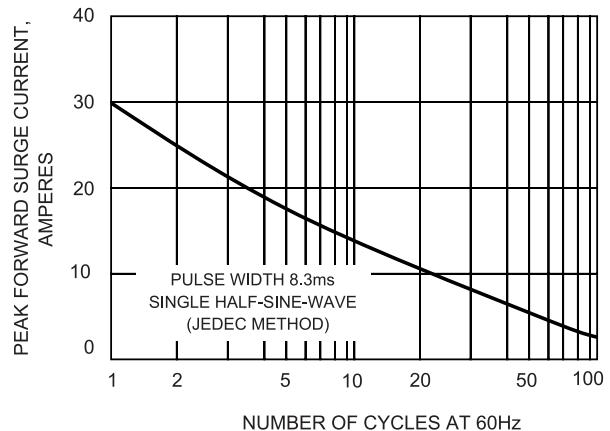


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

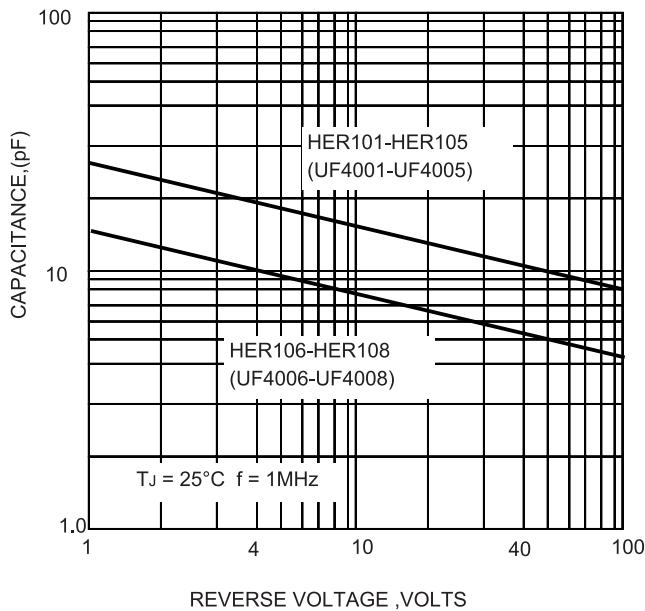
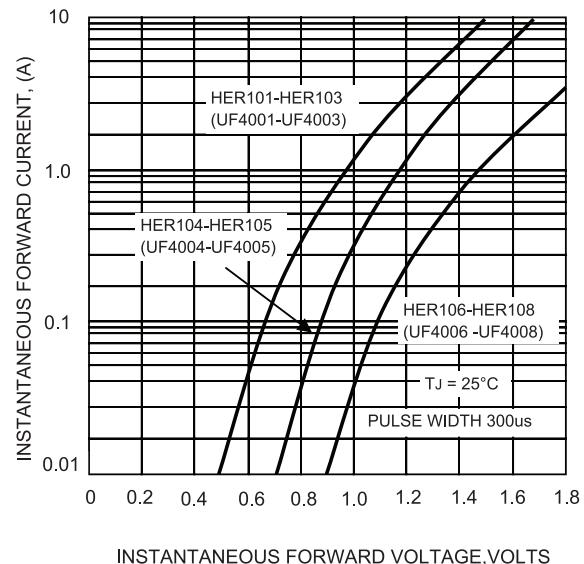


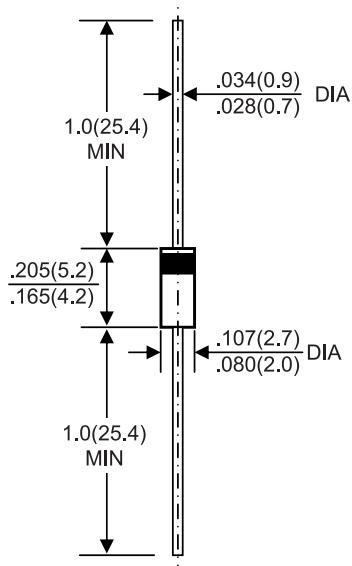
FIG.4-TYPICAL FORWARD CHARACTERISTICS



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Dimensions:

DO- 41



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
UF4001	
UF4002	
UF4003	
UF4005	
UF4007	
UF4008	

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