

UF4001-E THRU UF4007-E

**ULTRAFAST EFFICIENT
GLASS PASSIVATED JUNCTION RECTIFIER**
VOLTAGE: 50 TO 1000V CURRENT: 1.0A



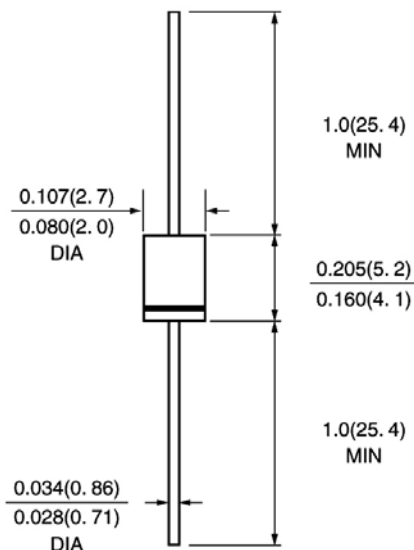
FEATURE

Low power loss
High surge capability
Glass passivated chip junction
Ultra-fast recovery time for high efficiency
High temperature soldering guaranteed
250°C/10sec/0.375" lead length at 5 lbs tension
Pb Free
Halogen Free

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Halogen Free Epoxy
Polarity: color band denotes cathode
Mounting position: any

DO -41\DO-204AL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	UF 4001-E	UF 4002-E	UF 4003-E	UF 4004-E	UF 4005-E	UF 4006-E	UF 4007-E	units
Maximum Recurrent 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 3/8" lead length at Ta =55°C	I _{f(av)}	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	30.0							A
Maximum Forward Voltage at Forward current 1A Peak	V _f	1.0			1.7			V	
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	10.0			100.0			μ A μ A	
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50			75			nS	
Typical Junction Capacitance (Note 2)	C _j	17.0							pF
Typical Thermal Resistance (Note 3)	R _{th(ja)}	60.0							°C/W
Storage and Operating Junction Temperature	T _{stg,Tj}	-55 to +150							°C

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0V_{dc}
- Thermal Resistance from Junction to Ambient at 3/8" lead length, P.C. Board Mounted

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

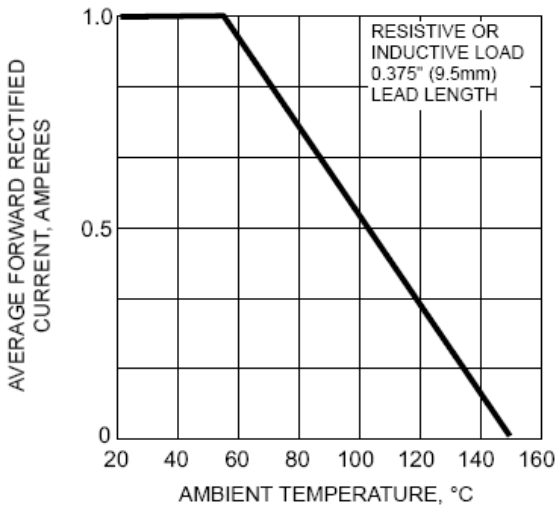


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

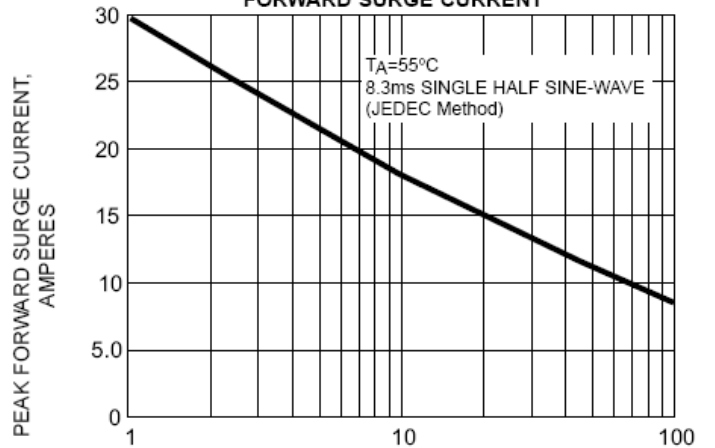


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

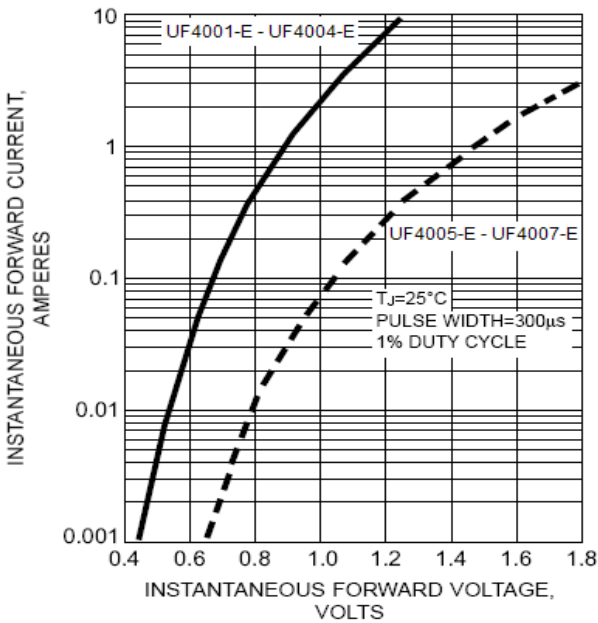


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

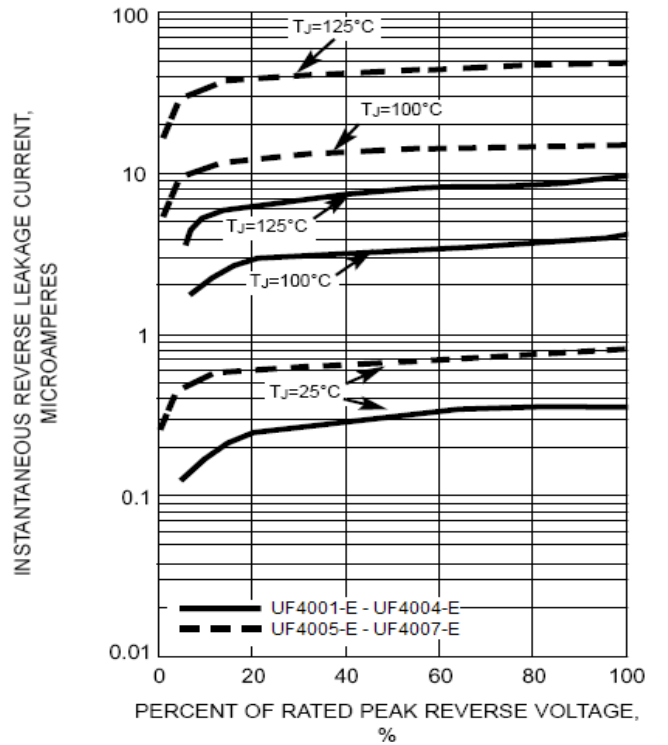


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

