

UF1001E THRU UF1007E

**ULTRAFAST EFFICIENT
PLASTIC SILICON RECTIFIER**
VOLTAGE: 50 TO 1000V CURRENT: 1.0A

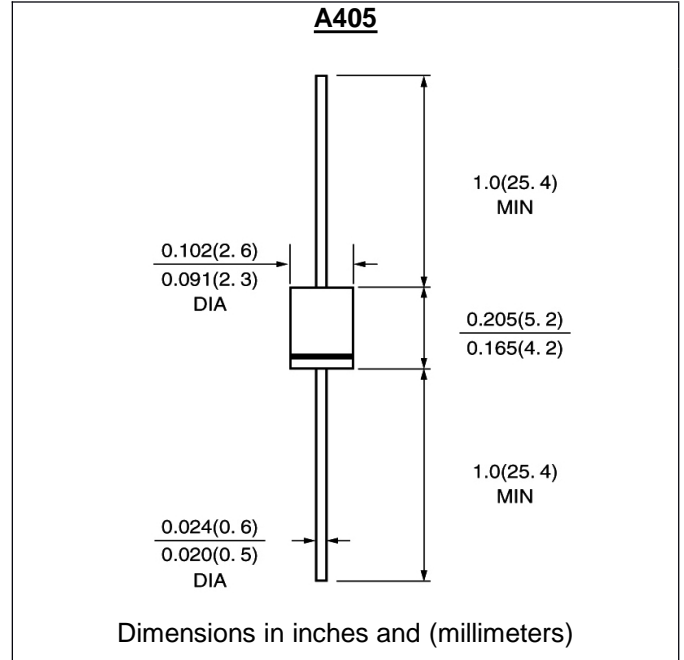


FEATURE

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

MECHANICAL DATA

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	UF1 001E	UF1 002E	UF1 003E	UF1 004E	UF1 005E	UF1 006E	UF1 007E	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		1.3		1.7			V	
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =120°C	I _r	5.0 100.0							μ A μ A	
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50				75				nS
Typical Junction Capacitance (Note 2)	C _j	20				10				pF
Typical Thermal Resistance (Note 3)	R(ja)	25.0							°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 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8" lead length, P.C. Board Mounted

FIG.1 - FORWARD CURRENT DERATING CURVE

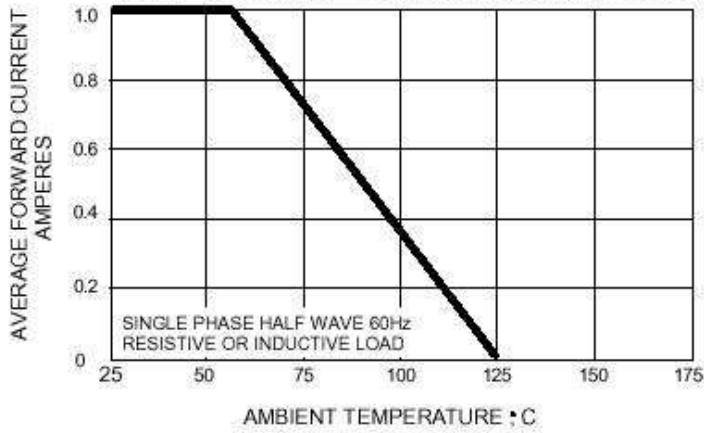


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

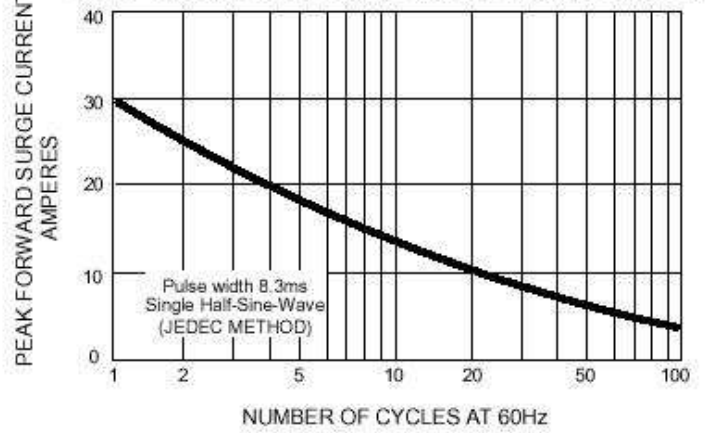


FIG.3 - TYPICAL JUNCTION CAPACITANCE

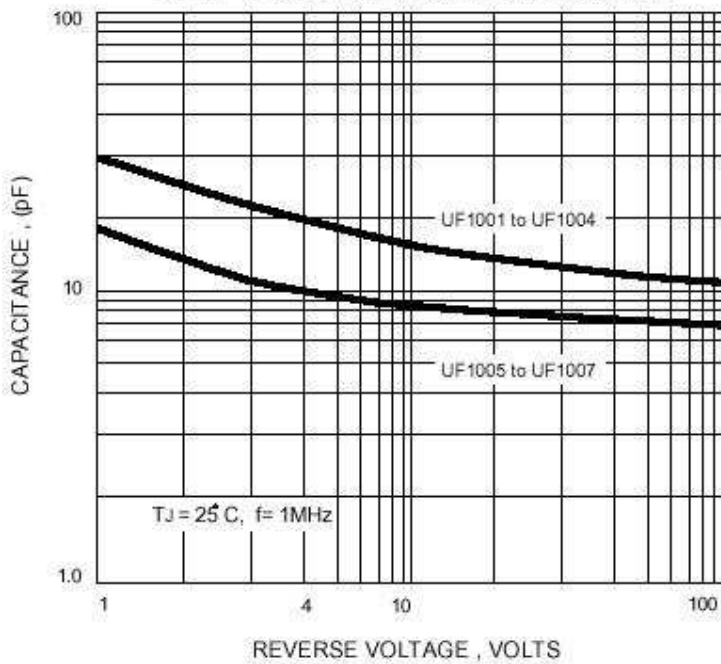


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

