

UF5400-E thru UF5408-E

ULTRAFAST EFFICIENT GLASS PASSIVATED RECTIFIER

Voltage: 50 to 1000V

Current: 3.0A



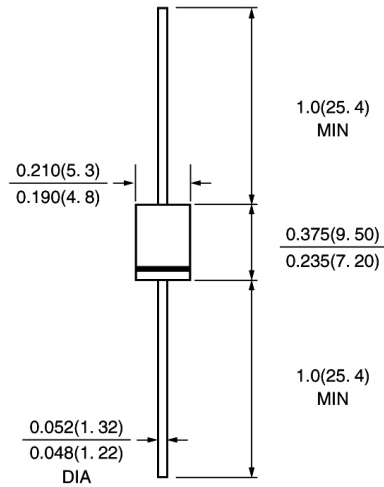
FEATURE

Low power loss
High surge capability
Ultra-fast recovery time for high efficiency
High temperature soldering guaranteed
250°C/10sec/0.375" lead length at 5 lbs tension
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-201AD



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, for capacitive load, derate current by 20%)

	Symbol	UF5 400- E	UF5 401- E	UF5 402- E	UF5 403- E	UF5 404- E	UF5 405- E	UF5 406- E	UF5 407- E	UF5 408- E	units	
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	300	400	500	600	800	1000	V	
Maximum RMS Voltage	V _{rms}	35	70	140	210	280	350	420	560	700	V	
Maximum DC blocking Voltage	V _{dc}	50	100	200	300	400	500	600	800	1000	V	
Maximum Average Forward Rectified Current 3/8" lead length at Ta =55°C	I _{f(av)}	3.0									A	
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I _{fsm}	150.0									A	
Maximum Instantaneous Forward Voltage at Rated forward current	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					μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50					75					nS
Typical Junction Capacitance (Note 2)	C _j	45.0					36.0					pF
Typical Thermal Resistance (Note 3)	R _{th(ja)} R _{th(jl)}	20.0					8.5					°C/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-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 and Junction to Lead with 3/8" lead length, both leads attached to heatsink

RATINGS AND CHARACTERISTIC CURVES UF5400-E THRU UF5408-E

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

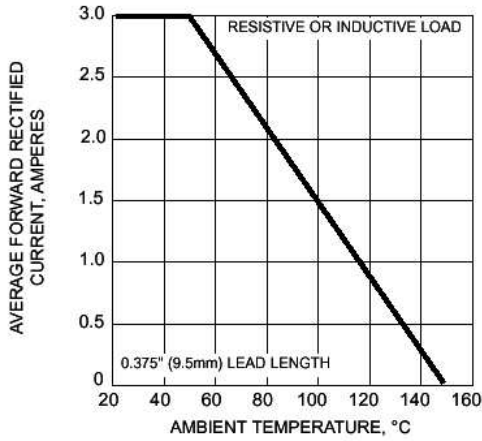


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

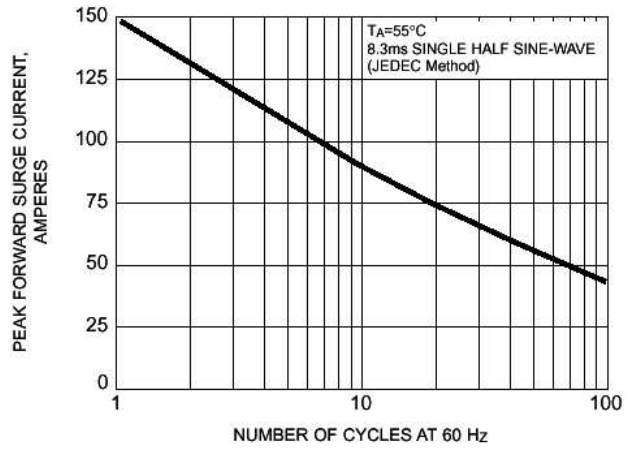


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

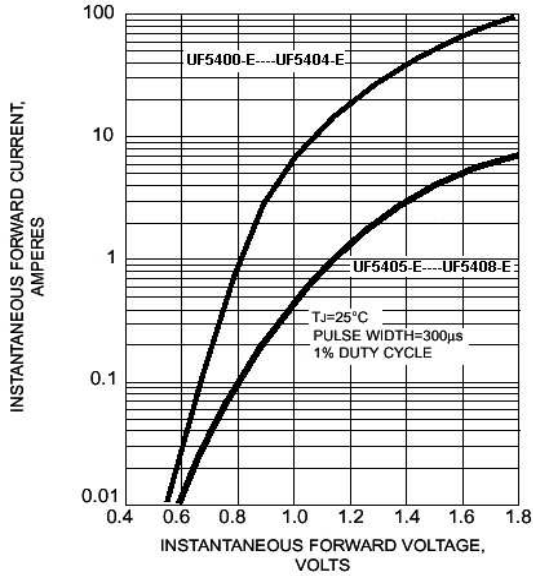


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

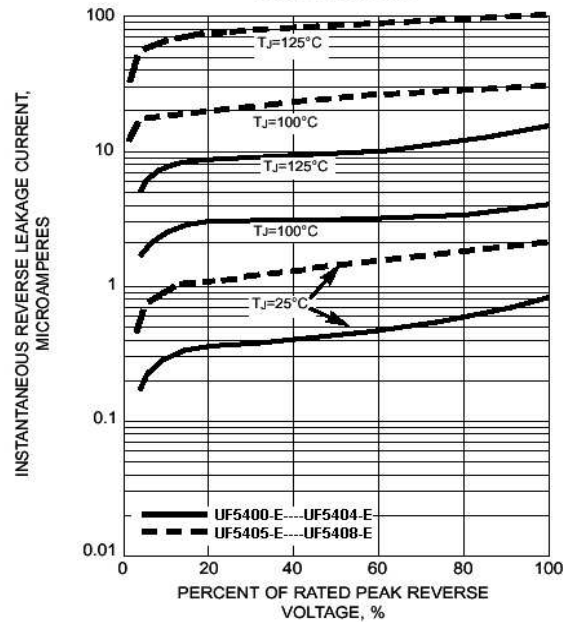


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

