

UF5400G THRU UF5408G

Ultra Fast Glass Passivated Rectifier

Reverse Voltage - 50 to 1000 V

Forward Current - 3 A

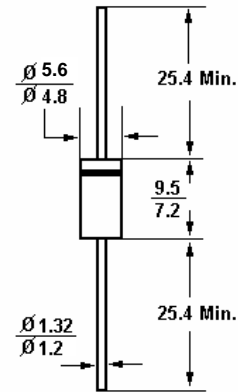
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ultrafast recovery time for high efficiency
- High forward surge current capability
- Low reverse leakage

Mechanical Data

- **Case:** Molded plastic body, JEDEC DO-201AD
- **Terminals:** Plated Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any

DO-201AD



Dimensions in mm

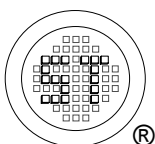
Absolute Maximum Ratings and Characteristics

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%.

Parameter	Symbols	UF5400G	UF5401G	UF5402G	UF5403G	UF5404G	UF5406G	UF5407G	UF5408G	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	3								A	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	125								A	
Maximum Instantaneous Forward Voltage at 3 A	V_F	1			1.25		1.7			V	
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated Reverse Voltage $T_A = 100^\circ\text{C}$	I_R	5 150								μA	
Maximum Reverse Recovery Time ¹⁾	t_{rr}	50					75				ns
Typical Junction Capacitance ²⁾	C_j	75								pF	
Operating Junction Temperature Range	T_j	- 65 to + 150								$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 65 to + 150								$^\circ\text{C}$	

¹⁾ Reverse recovery condition $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

²⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.



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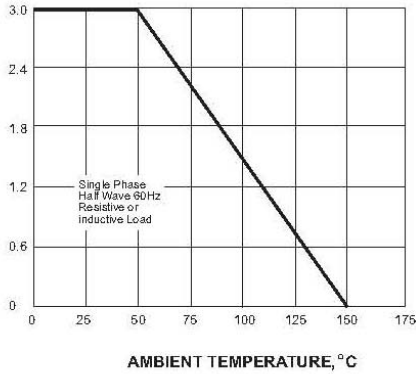
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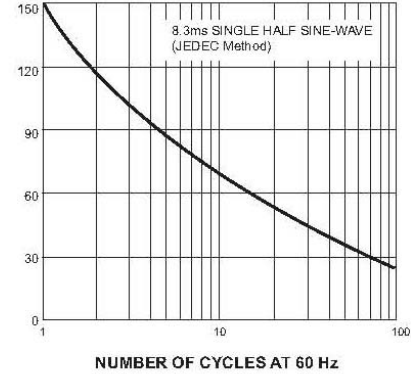
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



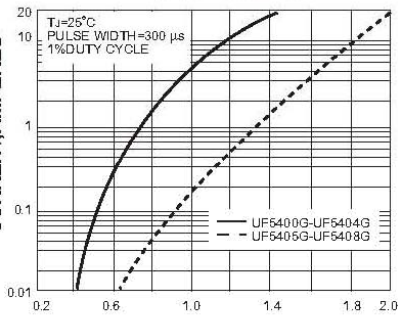
PEAK FORWARD SURGE CURRENT, AMPERES

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



INSTANTANEOUS FORWARD CURRENT I_F, AMPERES

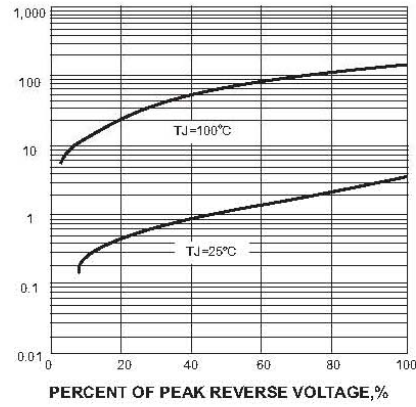
FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

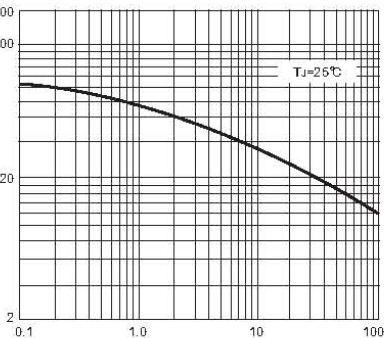
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE, %

JUNCTION CAPACITANCE, pF

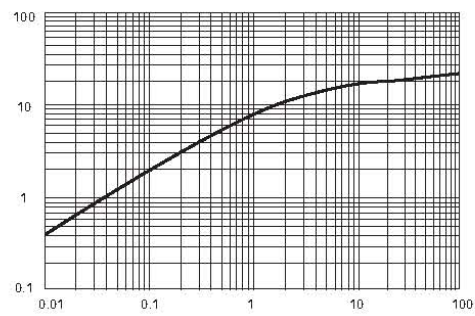
FIG. 5-TYPICAL JUNCTION CAPACITANCE



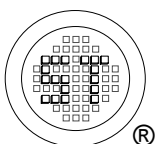
REVERSE VOLTAGE, VOLTS

TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t, PULSE DURATION, sec.



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