



ULTRA FAST RECTIFIER

UF5400
THRU
UF5408

FEATURES

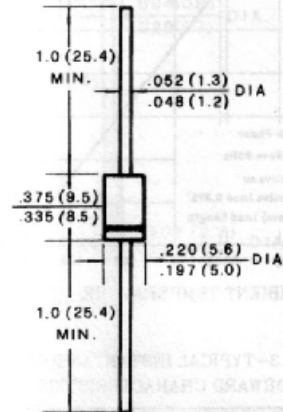
- Low cost construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed;
260°C/10 seconds/.375" (9.5mm) lead length
at 5 lbs (2.3kg) tension

MECHANICAL DATA

- Case; Transfer molded plastic
- Epoxy; UL94V-0 rate flame retardant
- Polarity; Color band denotes cathode end
- Lead; Plated axial lead, solderable per MIL-STD-202E
method 208C
- Mounting position; Any
- Weight; 0.042 ounce, 1.19 grams

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 3.0 Amperes

DO-27



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

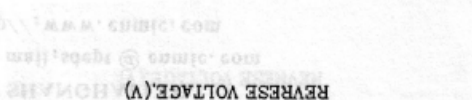
Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

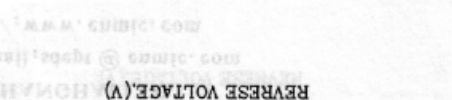
	SYMBOLS	UF5400	UF5401	UF5402	UF5403	UF5404	UF5405	UF5406	UF5407	UF5408	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A = 55^{\circ}\text{C}$	$I_{(AV)}$	3.0									Amps
Peak Forward Surge Current 8.3ms single half sine — wave superimposed on rated load (JEDEC Method)	I_{FSM}	150									Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.0					1.7				Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A = 25^{\circ}\text{C}$	10									Amps
	$T_A = 125^{\circ}\text{C}$										
Maximum Reverse Recovery Time (Note 3) $T_J = 25^{\circ}\text{C}$	t_{rr}	50					75				nS
Typical Junction Capacitance (Note 1)	C_J	45									pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20									$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150									$^{\circ}\text{C}$

NOTES:

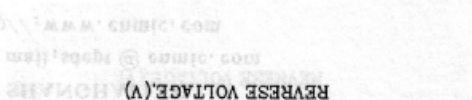
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at .375" (9.5mm) lead length, P. C. board mounted with 1.1" x 1.1" (30x30mm) copper heatsink.
3. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{tr} = 0.25A$.

[illegible]

REVERSE VOLTAGE(V)



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