



ULTRA FAST RECTIFIER

UF5400 THRU UF5408

VOLTAGE RANGE
CURRENT

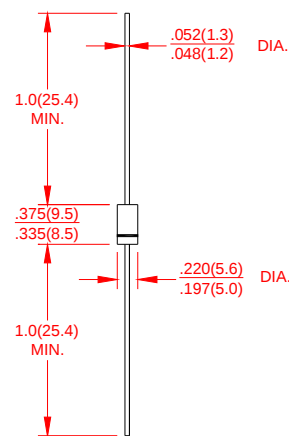
50 to 1000 Volts
3.0Ampere

FEATURES

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

MECHANICAL DATA

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



Dimensions in inches and (millimeters)

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	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	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°C		I _(AV)	3.0									Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I _{FSM}	125									Amps
Maximum Instantaneous Forward Voltage @ 3.0A		V _F	1.0					1.7				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	I _R	10									μA
	T _A = 125°C		50									
Maximum Reverse Recovery Time T _J = 25°C(NOTE 1)		trr	50					75				ns
Typical Thermal Resistance (NOTE 2)		C _J	45									PF
Typical Thermal Resistance(NOTE 3)		R _{0JA}	20									°C/W
Operating Junction Temperature Range		T _J ,T _{STG}	(-55 to +150)									°C

Notes:

- 1 Test Condition: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse of 4.0 volts.
- 3 Thermal resistance from junction to ambient with .375"(9.5mm)lead length, P.C.B. mounted. .



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RATING AND CHARACTERISTIC CURVES UF5400 THRU UF5408

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

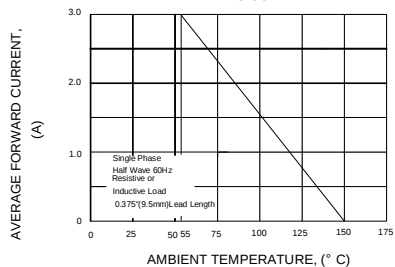


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

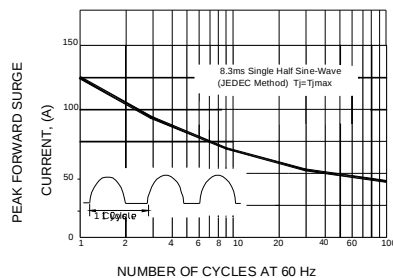


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

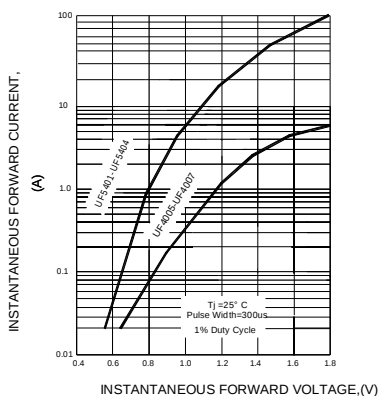


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

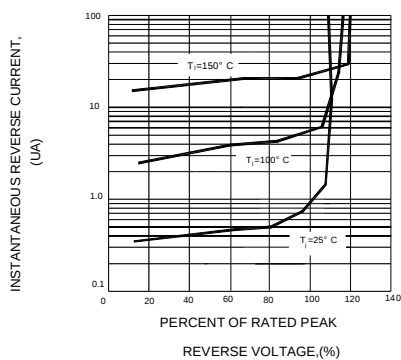


FIG.5-TYPICAL JUNCTION CAPACITANCE

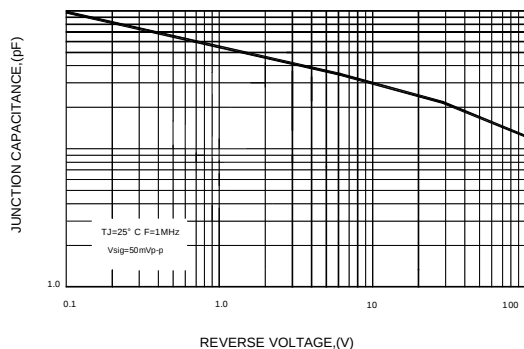


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC

