

UF5400 THRU UF5408



3.0 AMP HIGH EFFICIENCY RECTIFIERS



FEATURES

- *Low forward voltage drop
- *High current capability
- *High reliability
- *High surge current capability
- *High speed switching
- *Both normal and Pb free product are available:
- *Normal: 80~95%Sn, 5~20%Pb
- *Pb free: 99Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

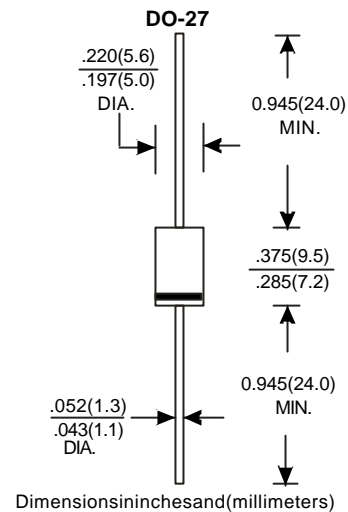
- *Case: Molded plastic
- *Epoxy: UL94V-0 rate flamer retardant
- *Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- *Polarity: Color band denotes cathode end
- *Mounting position: Any
- *Weight: 1.10 grams

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

3.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPENUMBER	UF5400	UF5401	UF5402	UF5404	UF5406	UF5407	UF5408	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at Ta=50°C	3.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	200							A
Maximum Instantaneous Forward Voltage at 3.0A	1.0		1.3		1.70			V
Maximum DC Reverse Current Ta=25°C	5							µA
at Rated DC Blocking Voltage Ta=100°C	100							µA
Maximum Reverse Recovery Time (Note 1)	50				75			rS
Typical Junction Capacitance (Note 2)	75							pF
Operating and Storage Temperature Range Tj, TSTG	-65 — +150							°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (UF5400 THRU UF5408)

FIG. 1-TYPICAL FORWARD CHARACTERISTICS

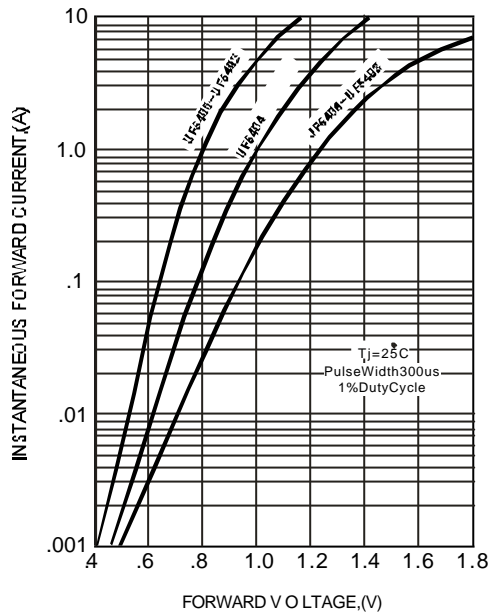


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

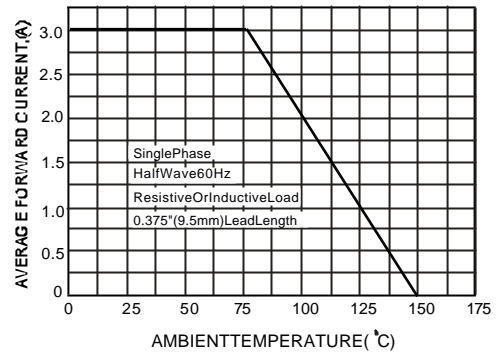


FIG. 4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

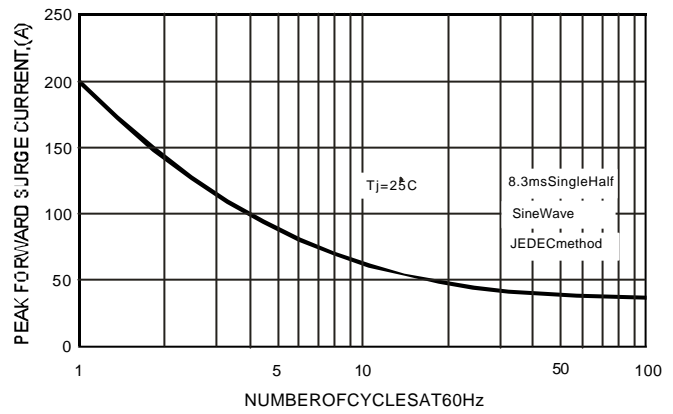
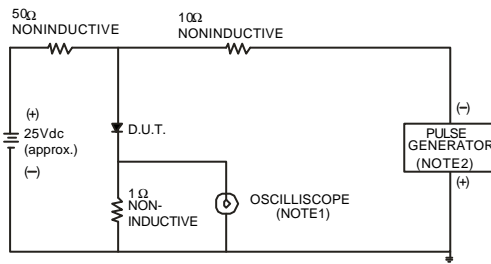


FIG. 3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time = 7ns max., Input Impedance = 1 megohm, 22pF.
2. Rise Time = 10ns max., Source Impedance = 50ohms.

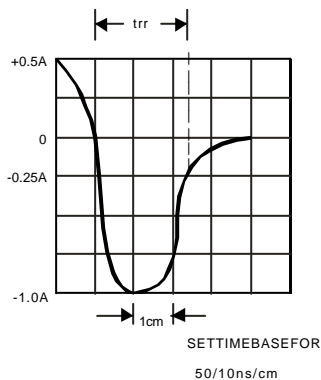


FIG. 5-TYPICAL JUNCTION CAPACITANCE

