

HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V CURRENT: 3.0 A

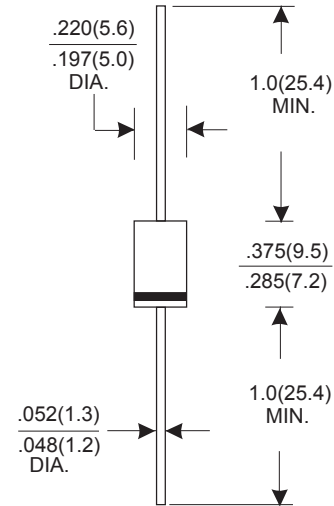
FEATURES

- Low cost
- Low leakage
- low forward voltage drop
- High cleaned with Alcohol, isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: DO-27, molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

DO-27



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted) Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate by 20%.

		UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	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 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	3.0									A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	150.0									A	
Maximum instantaneous forward voltage @ 3.0 A	V_F	1.0			1.7					V		
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	10.0					100.0					μA
Maximum reverse recovery time (Note1)	t_{rr}	50			75					ns		
Typical junction capacitance (Note2)	C_J	45									pF	
Typical thermal resistance (Note3)	$R_{\theta JA}$	20									$^\circ C/W$	
Operating junction temperature range	T_J	- 55 ----- + 125									$^\circ C$	
Storage temperature range	T_{STG}	- 55 ----- + 150									$^\circ C$	

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

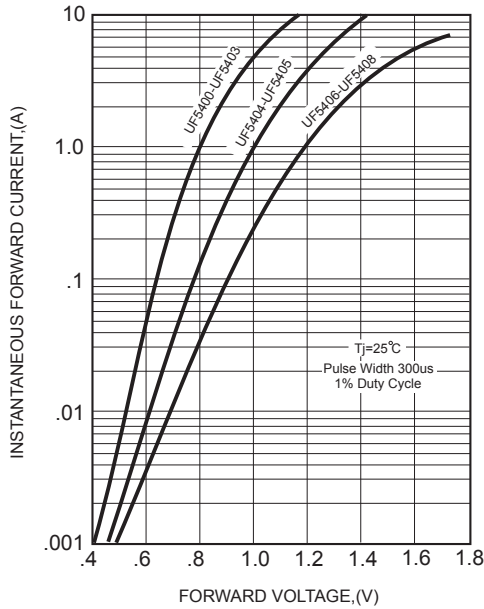


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

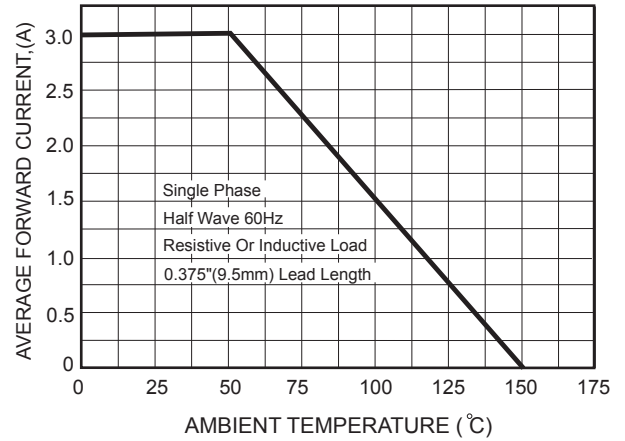
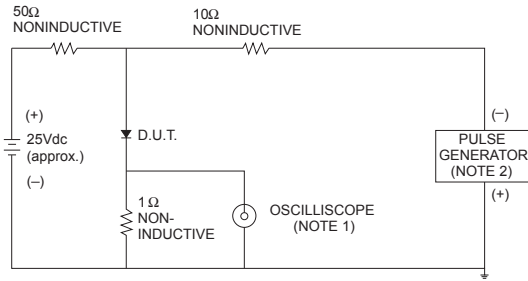


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

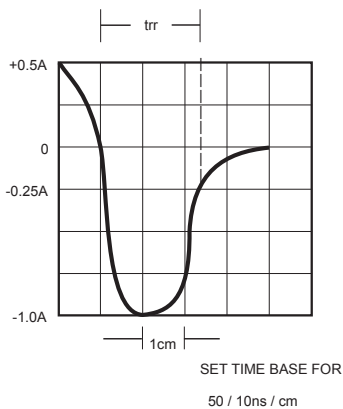


FIG.5-TYPICAL JUNCTION CAPACITANCE

