

UF3001-HF Thru. UF3008-HF

Voltage: 50 to 1000 V

Current: 3.0 A

RoHS Device

Halogen Free

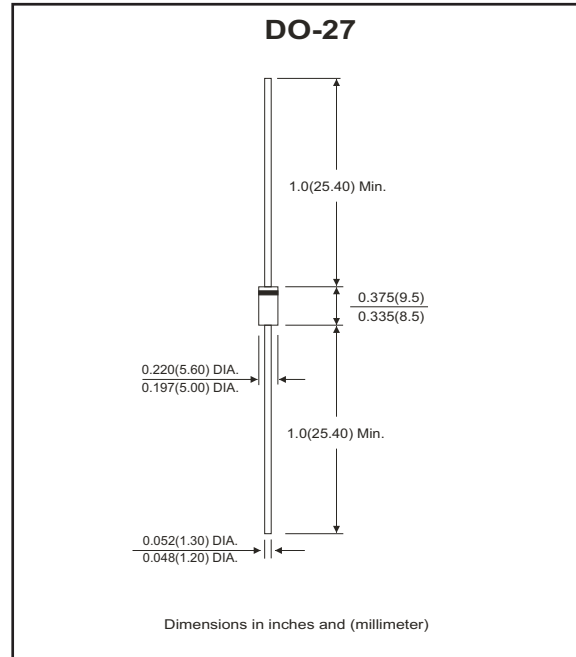


Features

- Low cost construction.
- Ultra fast switching for high efficiency.
- Low reverse leakage current.
- High forward voltage drop.
- High current capability.
- The plastic material carries UL recognition 94V-0

Mechanical data

- Case: JEDEC DO-27 molded plastic .
- Polarity: Color band denotes cathode.
- Lead: Plated axial lead, solderable per MIL-STD-202E, method 208C
- Mounting position: Any
- Weight: 0.04 ounces, 1.1 grams



Electrical Characteristics (at TA=25°C unless otherwise noted)

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%.

Parameter	Symbol	UF3001 -HF	UF3002 -HF	UF3003 -HF	UF3004 -HF	UF3005 -HF	UF3006 -HF	UF3007 -HF	UF3008 -HF	Unit
	Marking	UF3001	UF3002	UF3003	UF3004	UF3005	UF3006	UF3007	UF3008	
Maximum repetitive 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 @TA=55	I_{AV}	3.0								A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125								A
Peak forward voltage at 3.0A DC	V_F	1.0			1.3		1.7			V
Maximum reverse current at rated DC blocking voltage	TA=25°C	5.0								µA
	TA=100°C	100								µA
Maximum reverse recovery time (Note 1)	t_r	50					75			nS
Typical junction capacitance (Note 2)	C_J	50					30			PF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	20								°C/W
Operating temperature range	T_J	-55 ~ +125								°C
Storage temperature range	T_{STG}	-55 ~ +150								°C

NOTES:

1. Measured with $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0Volts.
3. Thermal resistance junction to ambient.

Rating and Characteristic Curves (UF3001-HF Thru. UF3008-HF)

Fig.1 Forward Current Derating Curve

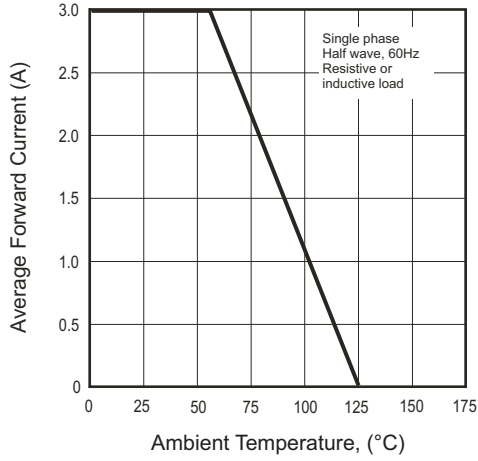


Fig.2 Maximum Non-Repetitive Surge Current

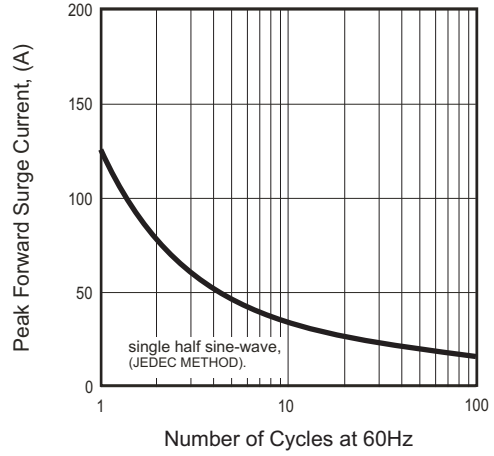


Fig.3 Typical Junction Capacitance

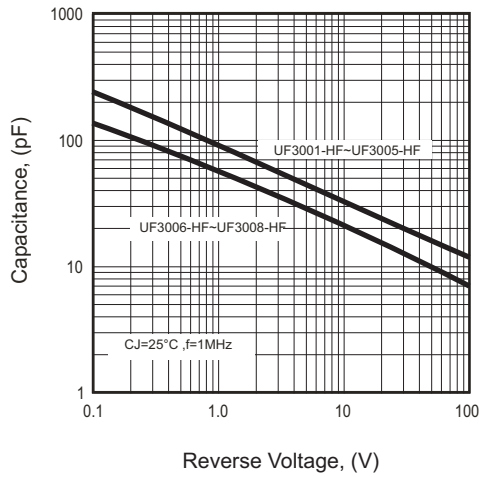


Fig.4 Typical Forward Characteristics

