

RoHS
Compliant



Features

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

Specifications

Reverse Voltage : 50 to 1,000 Volts
Forward Current : 3 Amperes

Mechanical Data

Case : JEDEC DO-27 moulded plastic
Polarity : Colour band denotes cathode
Weight : 0.04 ounces, 1.1 grams
Mounting Position : Any

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%

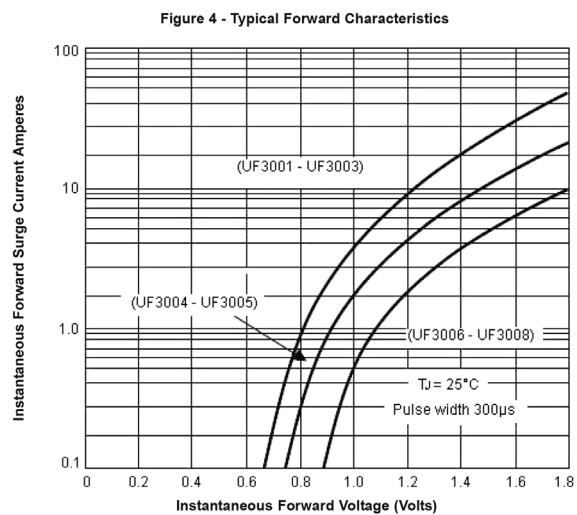
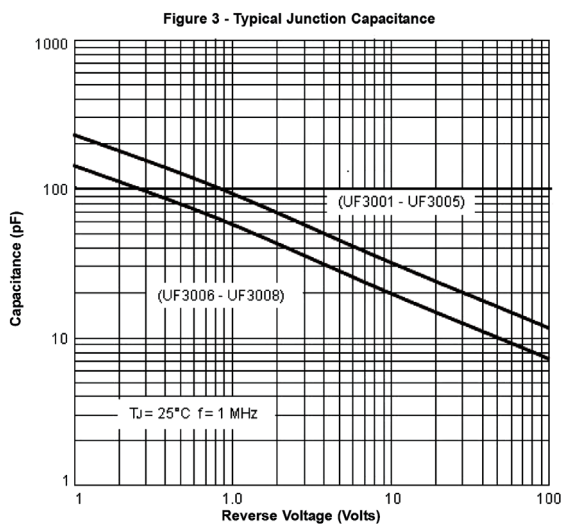
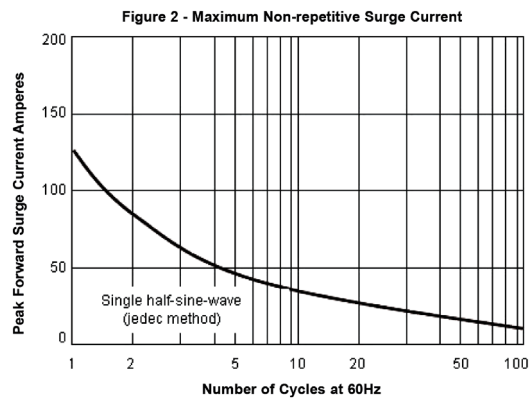
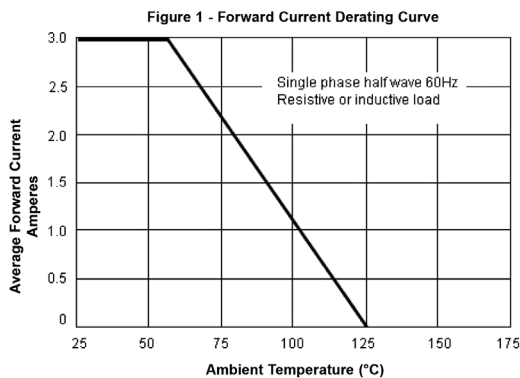
Characteristics	Sym- bol	UF3001	UF3002	UF3003	UF3004	UF3005	UF3006	UF3007	UF3008	Unit	
Max. Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V	
Max. RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700		
Max. DC Blocking Voltage	V DC	50	100	200	300	400	600	800	1000		
Max. Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_A=50^\circ\text{C}$	$I_{(AV)}$	3								A	
Bakelite Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	125								A	
Peak Forward Voltage at 2A DC (Note 1)	V_F	1			1.3		1.7			V	
Max. DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Bolcking Voltage @ $T_J=100^\circ\text{C}$	I_R	5				100					μA

Characteristics	Sym-bol	UF3001	UF3002	UF3003	UF3004	UF3005	UF3006	UF3007	UF3008	Unit
Max. Reverse Recovery Time (Note 1)	T_{RR}	50					75			nS
Typical Junction Capacitance (Note 1)	C_J	50					30			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20								°C/W
Operating Temperature Range	T_J	-55 to +125								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

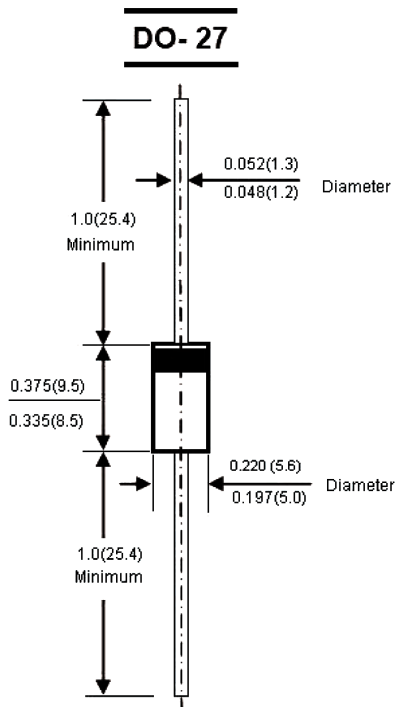
Notes:

1. Measured with $I_F=0.5A$, $C_{IR}=1A$, $C_{IRR}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4V DC.
3. Thermal resistance junction to ambient.

Rating and Characteristic Curves



Diagram



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Ultra Fast Rectifiers	UF3001
	UF3002
	UF3003
	UF3004
	UF3005
	UF3006
	UF3007
	UF3008

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