

**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 : 1 Amperes

Mechanical Data

Case : JEDEC DO-41 moulded plastic
Polarity : Colour band denotes cathode
Weight : 0.012 ounces, 0.34 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%

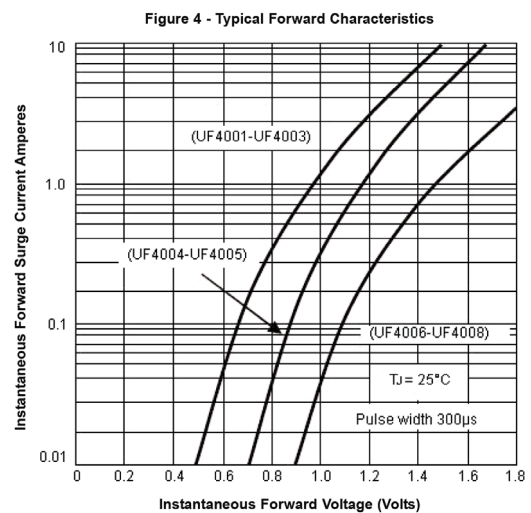
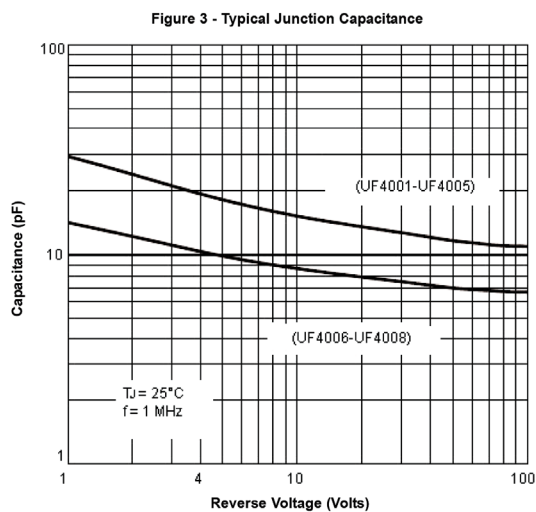
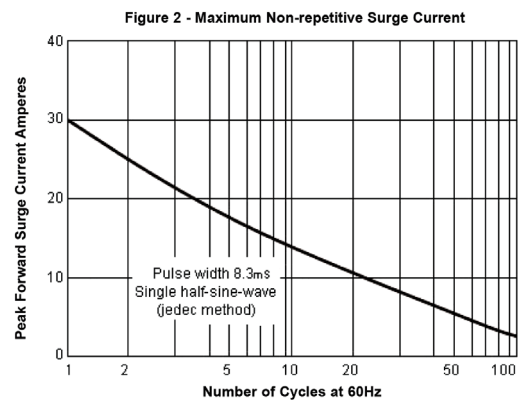
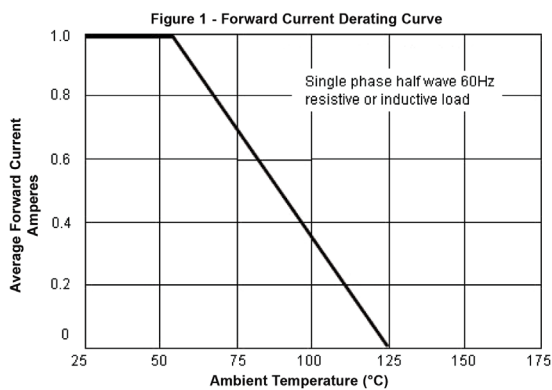
Characteristics	Sym- bol	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UF4008	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Max. RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	
Max. DC Blocking Voltage	V DC	50	100	200	300	400	600	800	1000	
Max. Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_A=50^\circ\text{C}$	$I_{(AV)}$	1								A
Bakelite Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	30								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	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UF4008	Unit
Max. Reverse Recovery Time (Note 1)	T_{RR}	50					75			nS
Typical Junction Capacitance (Note 1)	C_J	20					10			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	25								°C/W
Operating Temperature Range	T_J	-55 to +125								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

Notes:

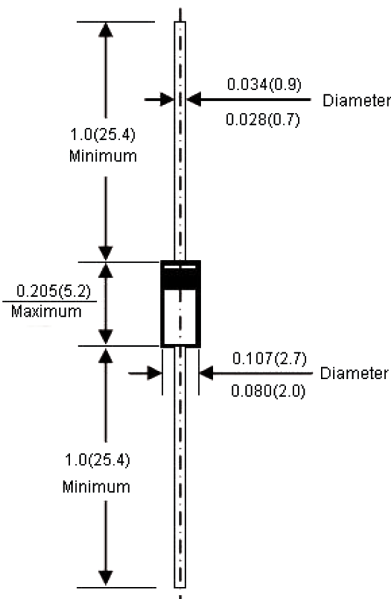
1. Measured with $I_F=0.5A$, $C_{IR}=1A$, $C_{IRR}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4V DC.
3. Thermal resistance junction to ambient.

Rating and Characteristic Curves



Diagram

DO- 41



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Ultra Fast Rectifiers	UF4001
	UF4002
	UF4003
	UF4004
	UF4005
	UF4006
	UF4007
	UF4008

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