

OBSOLETE - PART DISCONTINUED

Features

- Diffused Junction
- Ultra-Fast Switching for High Efficiency
- Surge Overload Rating to 60A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 1)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

Mechanical Data

- Package: DO-15
- Package Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish – Tin. Solderable per MIL-STD-202, Method 208 (E3)
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.4 grams (Approximate)

Ordering Information (Note 2)

Part Number	Package	Packing	
		Qty.	Carrier
UF2001-T	DO-15	4k	Tape & Reel, 13-inch
UF2002-T	DO-15	4k	Tape & Reel, 13-inch
UF2003-T	DO-15	4k	Tape & Reel, 13-inch
UF2004-T	DO-15	4k	Tape & Reel, 13-inch
UF2005-T	DO-15	4k	Tape & Reel, 13-inch
UF2006-T	DO-15	4k	Tape & Reel, 13-inch
UF2007-T	DO-15	4k	Tape & Reel, 13-inch

- Notes: 1. RoHS revision 13.2.2003. High temperature solder exemption applied, see *EU Directive Annex Note 7*.
 2. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

Maximum Ratings and Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	UF 2001	UF 2002	UF 2003	UF 2004	UF 2005	UF 2006	UF 2007	Unit
Peak Repetitive Reverse Voltage	V _{RRM}								
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage (Note 3)	V _R								
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 4)	I _O	2.0							A
Non-Repetitive Peak Forward Surge Current	I _{FSM}	60							A
8.3ms Single Half Sine Wave Superimposed on Rated Load									
Forward Voltage @ I _F = 2.0A	V _{FM}	1.0		1.3		1.7			V
Peak Reverse Current @ T _A = +25°C	I _{RM}	5.0							µA
at Rated DC Blocking Voltage (Note 3) @ T _A = +100°C		100							
Reverse Recovery Time (Note 5)	t _{rr}	50			75			ns	
Typical Total Capacitance (Note 6)	C _T	50			30			pF	
Typical Thermal Resistance Junction to Ambient	R _{θJA}	50							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150							°C

- Notes: 3. Short duration pulse test used to minimize self-heating effect.
 4. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
 5. Measured at I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See Figure 5.
 6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

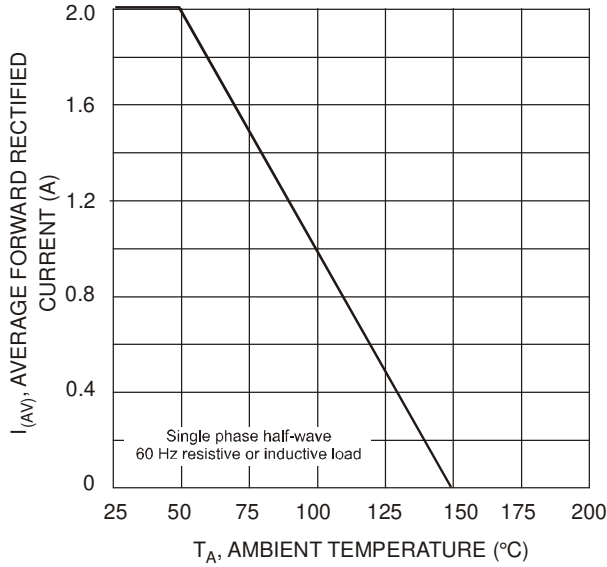


Fig. 1 Forward Current Derating Curve

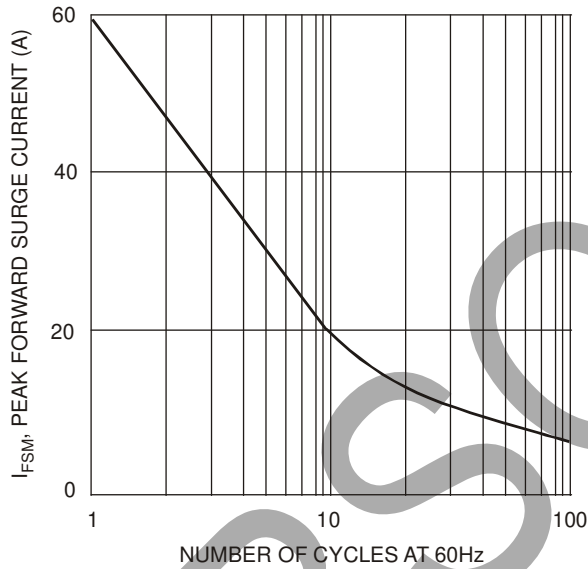


Fig. 3 Peak Forward Surge Current

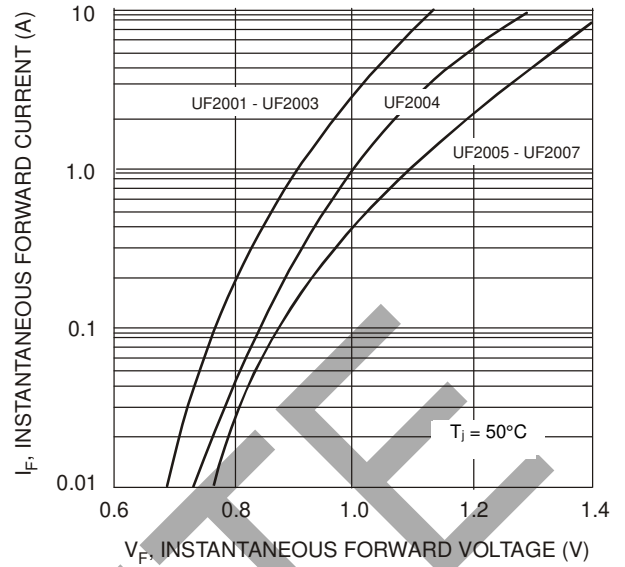


Fig. 2 Typical Forward Characteristics

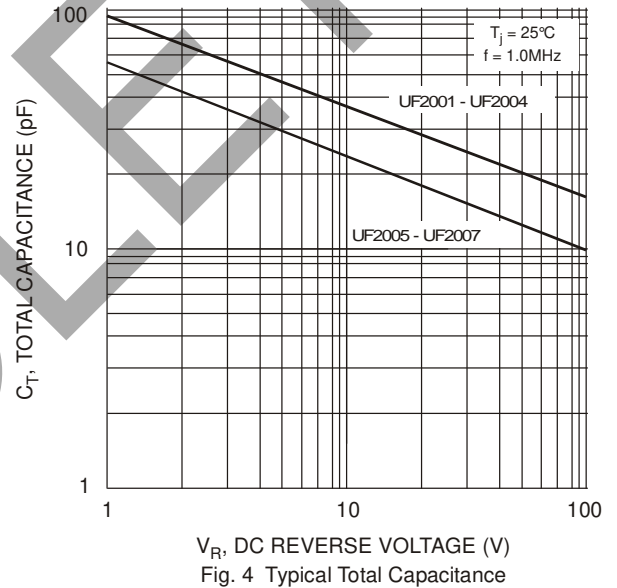
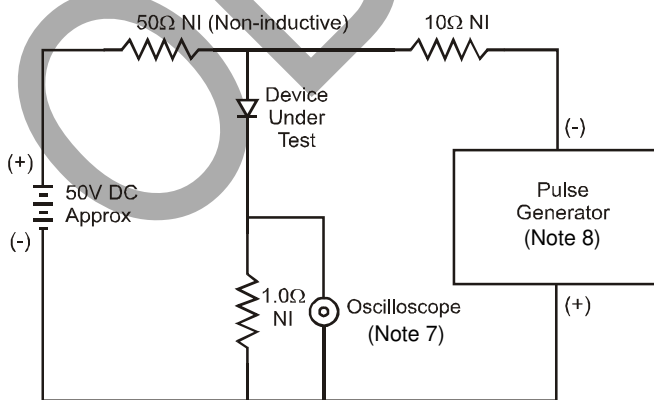
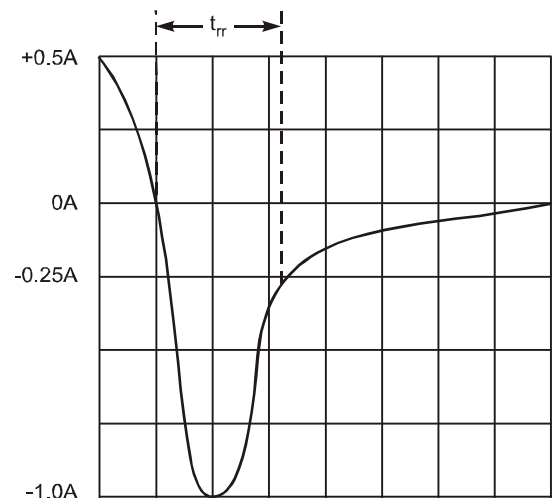


Fig. 4 Typical Total Capacitance



Notes: 7. Rise time = 7.0ns max. Input impedance = 1.0MΩ, 22pF.
8. Rise time = 10ns max. Input impedance = 50Ω.



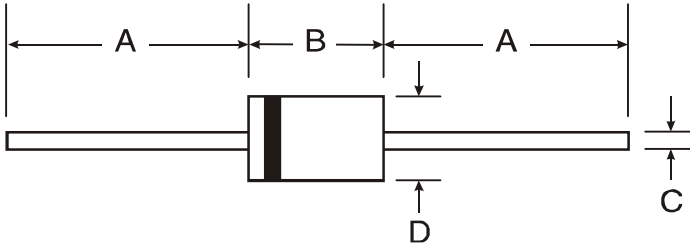
Set time base for 50/100 ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

DO-15



DO-15		
Dim	Min	Max
A	25.40	-
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

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