



Features:

- High current capability
- 1 Ampere operation at $T_A = 55^\circ\text{C}$ with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage

Specifications:

Mechanical Data:

Case	: Moulded plastic
Terminals	: Plated axial leads, solderable per MIL-STD-202, Method 208
Polarity	: Colour band denotes cathode
Mounting position	: Any
Weight	: 0.0064oz, 0.181g

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%.

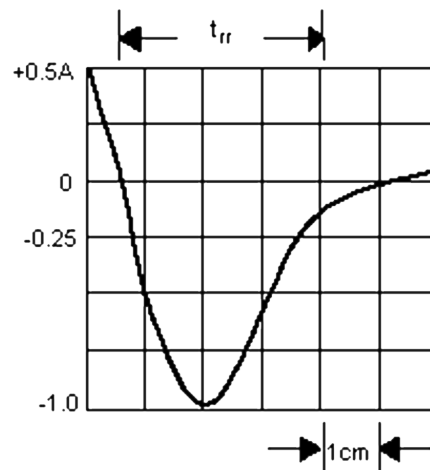
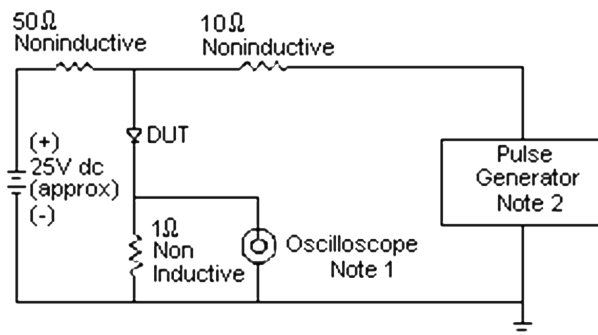
Parameters	Rating	Units
Maximum Recurrent Peak Reverse Voltage	400	V
Maximum RMS Voltage	280	
Maximum DC Blocking Voltage	400	
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	1	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	30	
Maximum Forward Voltage at 1A DC	1.3	V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_J = 25^\circ\text{C}$ 5 $T_J = 100^\circ\text{C}$ 500	μA

Parameters	Rating	Units
Typical Junction Capacitance (Note 1) C_J	12	pF
Typical Thermal Resistance (Note 3) $R_{\theta JA}$	67	$^{\circ}\text{C}/\text{W}$
Maximum Reverse Recovery Time (Note 2)	150	nS
Operating and Storage Temperature Range T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V DC.
2. Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.
3. Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) lead length PCB mounted with 0.22" x 0.22" (5.5mm x 5.5mm) copper pads.

Ratings and Characteristic Curves



Set Time Base For 50nS/cm

Notes:

1. Rise Time = 7nS maximum Input Impedance = 1MΩ, 22pF
2. Rise Time = 10nS maximum Source Impedance = 50Ω

Figure 1 - Reverse Recovery Time Characteristics and Test Circuit Diagram

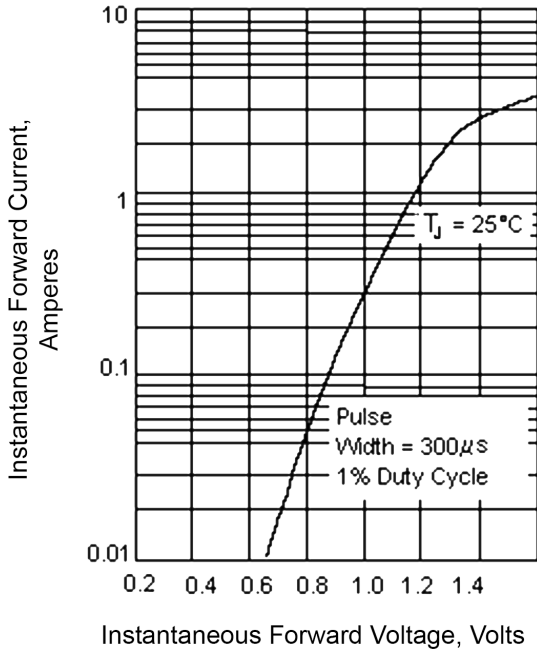


Figure 2 - Typical Instantaneous Forward Characteristics

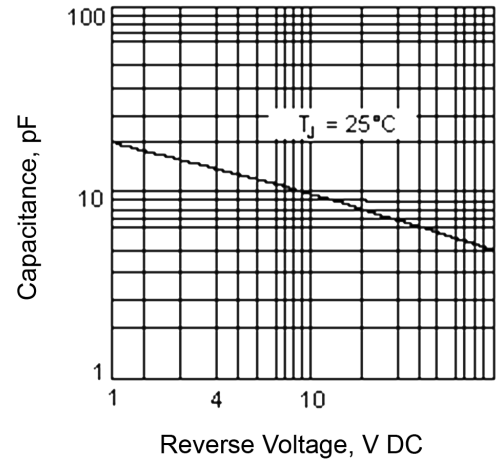


Figure 4 - Typical Junction Capacitance

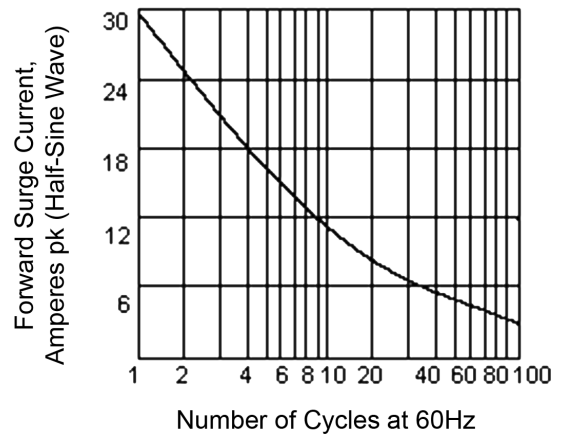


Figure 5 - Peak Forward Surge Current

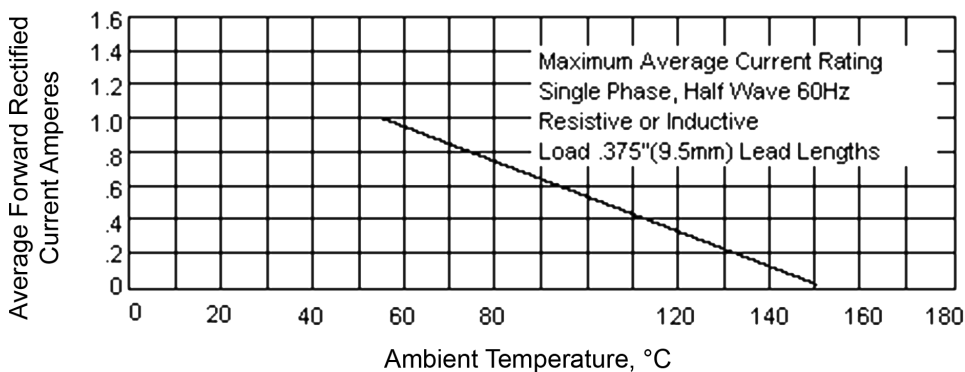
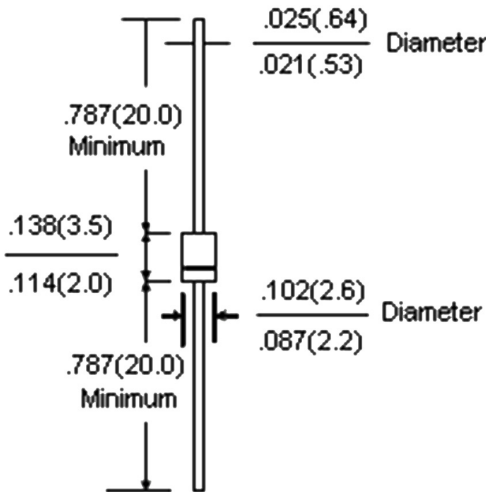


Figure 3 - Forward Current Derating Curve

Fast Diode



R-1



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Fast, 1A, 400V	1F4

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