

## Voltage Range

50 to 1000 Volts

## Current

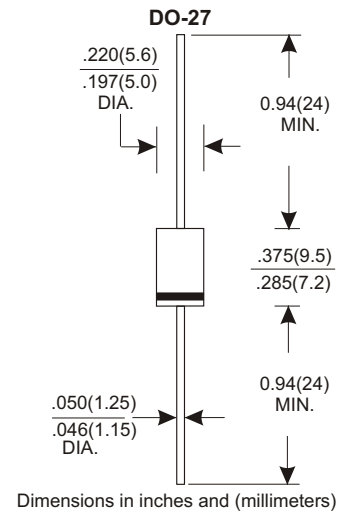
3.0 Amperes

## Features

Low forward voltage drop  
High current capability  
High reliability  
High surge current capability

## Mechanical Data

Case: Molded plastic  
Epoxy: UL 94V-0 rate flame retardant  
Lead: Axial leads, solderable per MIL-STD-202,  
method 208 guaranteed  
Polarity: Color band denotes cathode end  
Mounting position: Any  
Weight: 1.10 grams



## Maximum Ratings And Electrical Characteristics

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Type Number	FR307	UNITS
Maximum Recurrent Peak Reverse Voltage	1000	V
Maximum RMS Voltage	700	V
Maximum DC Blocking Voltage	1000	V
Maximum Average Forward Rectified Current 375"(9 5mm) Lead Length at Ta=75°C	3.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	125	A
Maximum Instantaneous Forward Voltage at 3 0A	1 3	V
Maximum DC Reverse Current Ta=25°C	5.0	μA
at Rated DC Blocking Voltage Ta=100°C	150	μA
Maximum Reverse Recovery Time (Note 1)	500	S
Typical Junction Capacitance (Note 2)	60	pF
Operating and Storage Temperature Range Tj, Tstg	-65 — +150	C

### NOTES:

- Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Rating And Characteristic Curves

FIG.1-Typical Forward Characteristics

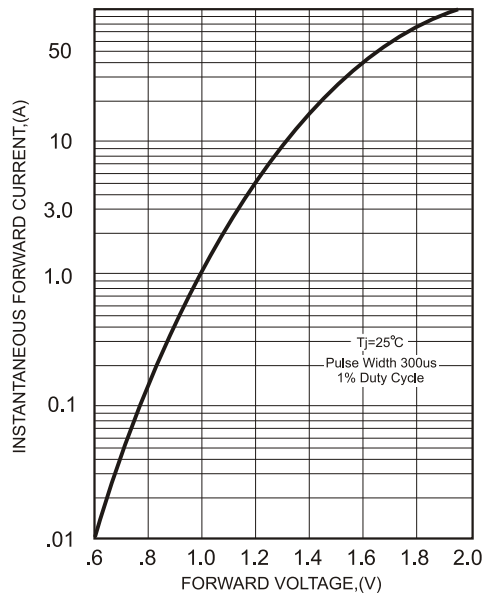
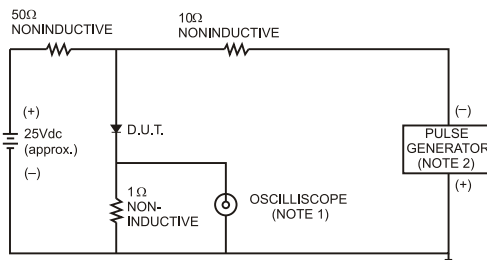


FIG.3-Test Circuit Diagram And Reverse Recovery Time Characteristics



NOTES: 1. Rise Time = 7ns max., Input Impedance = 1 megohm, 22pF.  
2. Rise Time = 10ns max., Source Impedance = 50 ohms.

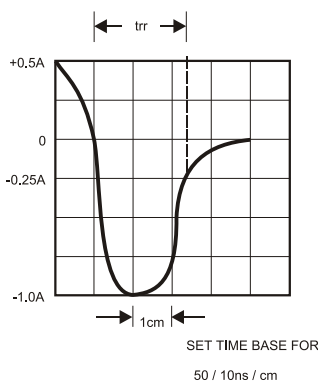


FIG.2-Typical Forward Current Derating Curve

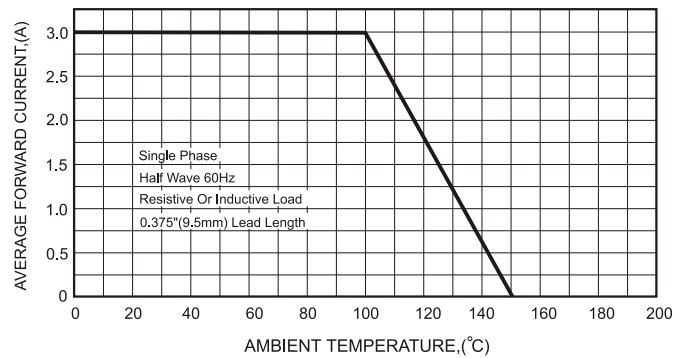


FIG.4-Maximum Non-Repetitive Forward Surge Current

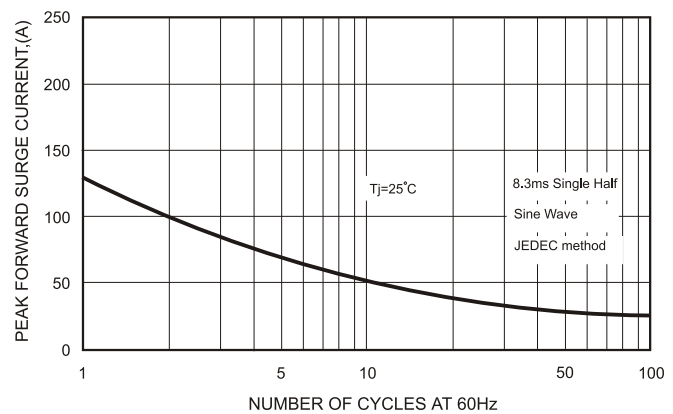
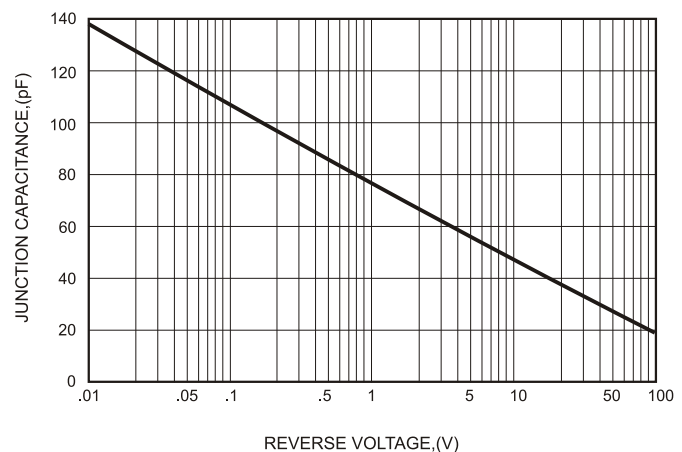


FIG.5-Typical Junction Capacitance



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