

# RG10 - RG10Y

# SUPER FAST RECTIFIER DIODES

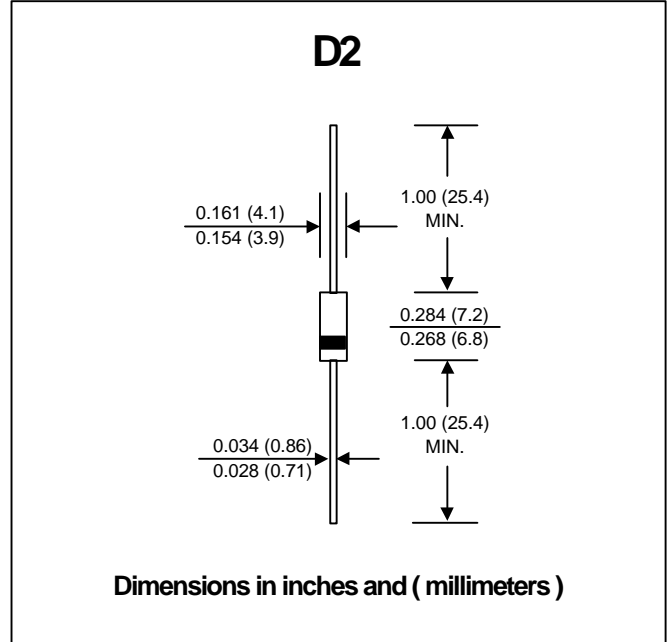
**PRV : 70 - 600 Volts**  
**Io : 1.0 - 1.5 Amperes**

**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Super fast recovery time

**MECHANICAL DATA :**

- \* Case : D2 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.465 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

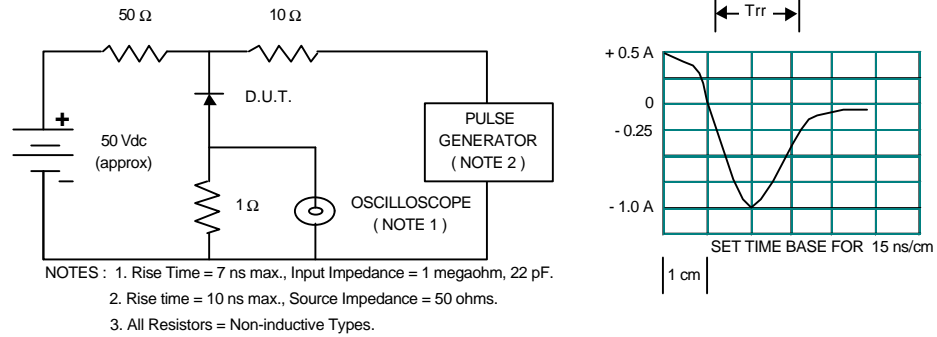
| RATING  | SYMBOL | RG10Y | RG10          | RG10A | UNITS |
|---|--------|-------|---------------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 70    | 400           | 600   | Volts |
| Maximum RMS Voltage   | VRMS   | 49    | 280           | 420   | Volts |
| Maximum Reverse Voltage   | VDC    | 70    | 400           | 600   | Volts |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length Ta = 55 °C                                 | IF(AV) | 1.5   | 1.2           | 1.0   | Amp.  |
| Peak Forward Surge Current,<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | IFSM   |       | 50            |       | Amps. |
| Maximum Peak Forward Voltage at IF = 1.0 A.   | VF     | 1.1   | 1.8           | 2.0   | Volts |
| Maximum DC Reverse Current Ta = 25 °C<br>at Rated DC Blocking Voltage Ta = 100 °C                       | IR     |       | 5             |       | µA    |
|   | IR(H)  |       | 50            |       | µA    |
| Maximum Reverse Recovery Time ( Note 1 )  | Trr    |       | 35            |       | ns    |
| Typical Junction Capacitance ( Note 2 )   | CJ     |       | 50            |       | pf    |
| Junction Temperature Range  | TJ     |       | - 65 to + 150 |       | °C    |
| Storage Temperature Range   | TSTG   |       | - 65 to + 150 |       | °C    |

**Notes :**

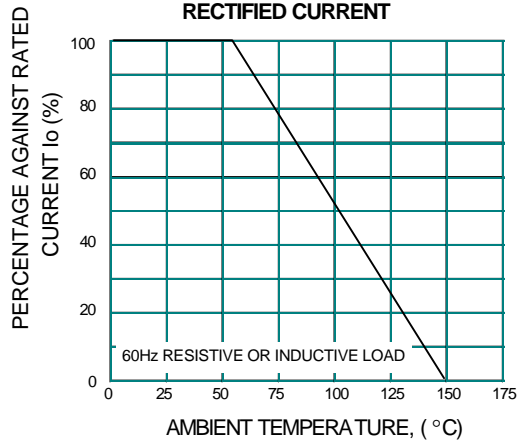
- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

## RATING AND CHARACTERISTIC CURVES ( RG10 - RG10Y )

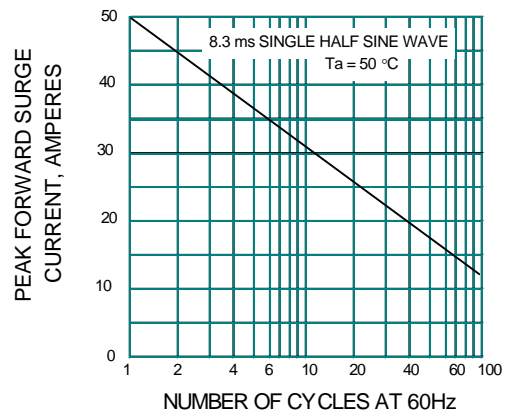
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



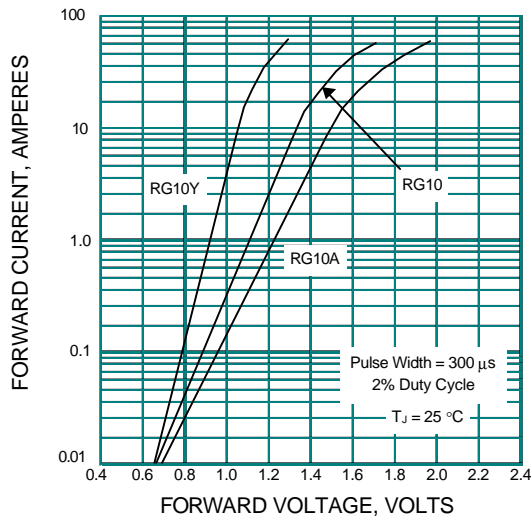
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

