

# RN1Z

## ULTRA FAST RECOVERY RECTIFIER DIODE

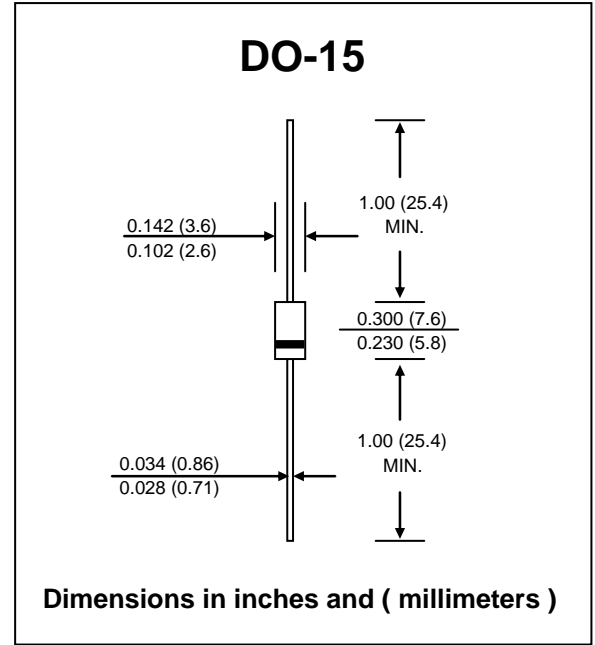
**PRV : 200 Volts**  
**Io : 1.5 Amperes**

**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : DO-15 Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.4 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

RATING	SYMBOL	VALUE	UNIT
Maximum Peak Reverse Voltage	V <sub>RM</sub>	200	V
Maximum Peak Reverse Surge Voltage	V <sub>RSM</sub>	200	V
Maximum Average Forward Current (See Fig. 1)	I <sub>F(AV)</sub>	1.5	A
Maximum Peak Forward Surge Current ( 50 Hz, Half-cycle, Sine wave, Single Shot )	I <sub>FSM</sub>	50	A
Maximum Forward Voltage at I <sub>F</sub> = 1.5 A	V <sub>F</sub>	0.92	V
Maximum Reverse Current at Reverse Voltage Ta = 25 °C	I <sub>R</sub>	20	μA
Maximum Reverse Current at Reverse Voltage Ta = 100 °C	I <sub>R(H)</sub>	3.0	mA
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	100	ns
Junction Temperature Range	T <sub>J</sub>	- 40 to + 150	°C
Storage Temperature Range	T <sub>STG</sub>	- 40 to + 150	°C

**Note:**

( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 100 mA, I<sub>RP</sub> = 100 mA.

## RATING AND CHARACTERISTIC CURVES ( RN1Z )

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

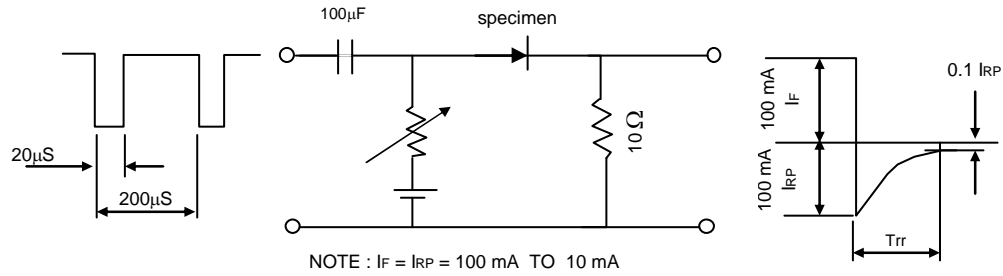


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

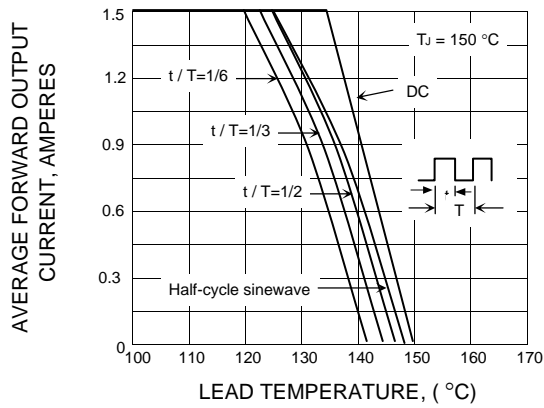


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

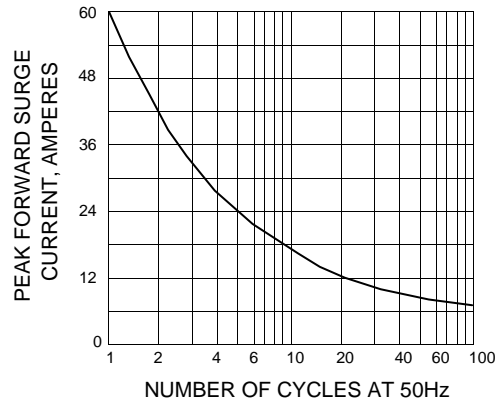


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

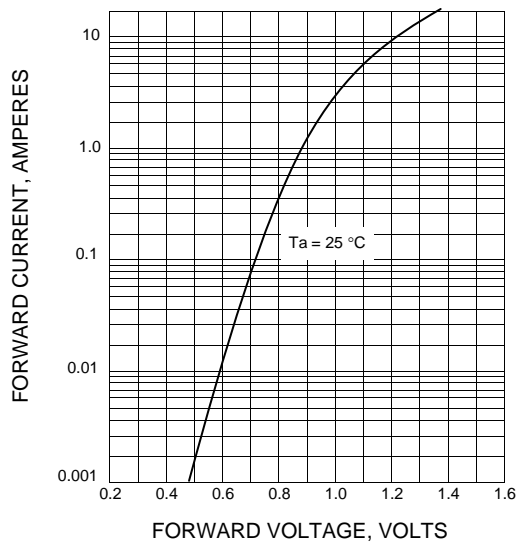


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

