



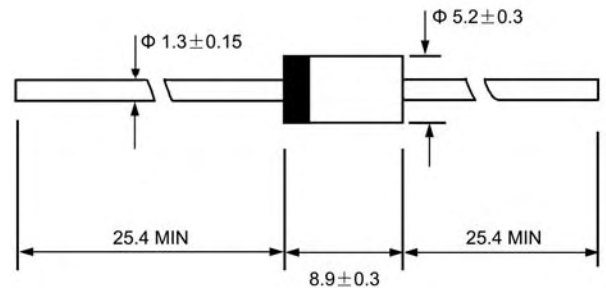
## Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with freon, alcohol, Isopropand and similar solvents

## Mechanical Data

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15grams
- ◇ Mounting: Any

## DO - 27



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

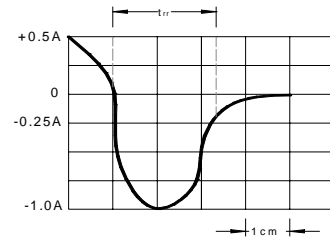
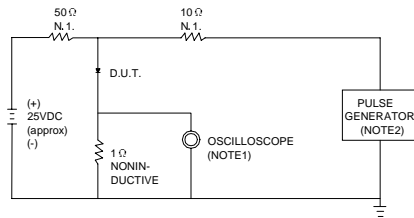
		RU30Z	RU30	RU30A	UNITS
Maximum peak repetitive reverse voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	3.5	2.0		A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	80.0	200.0		A
Maximum instantaneous forward voltage @ $I_F=I_{F(AV)}$	$V_F$	0.97	0.95		V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	10.0 300.0			$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	100			ns
Typical junction capacitance (Note2)	$C_J$	70	50		pF
Typical thermal resistance (Note3)	$R_{\theta JL}$	10			$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 ----- + 150			$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ----- + 150			$^\circ C$

NOTE: 1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

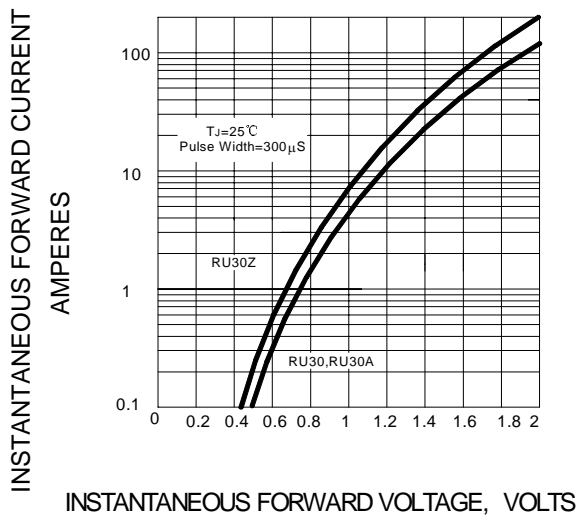
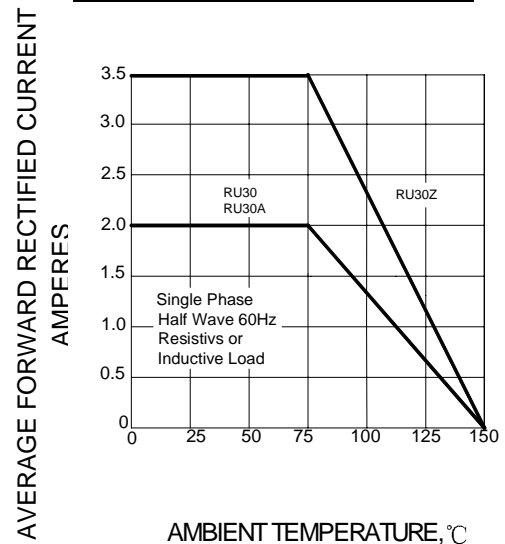
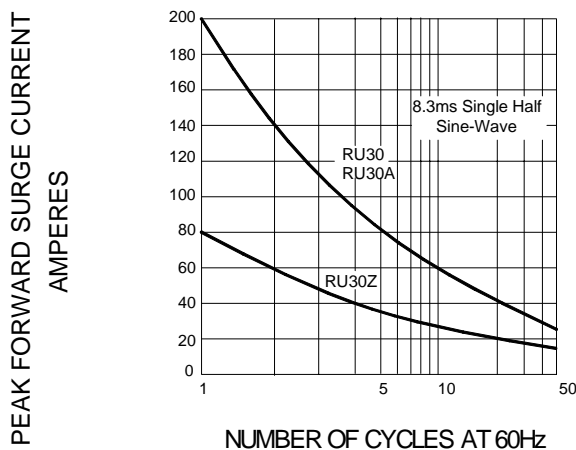
3. Thermal resistance from junction to ambient

## Ratings AND Characteristic Curves

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


NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1MΩ. 22pF.  
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 10/20 ns/cm

**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**

**FIG.3 – FORWARD DERATING CURVE**

**FIG.4 – PEAK FORWARD SURGE CURRENT**

**FIG.5 – TYPICAL JUNCTION CAPACITANCE**
