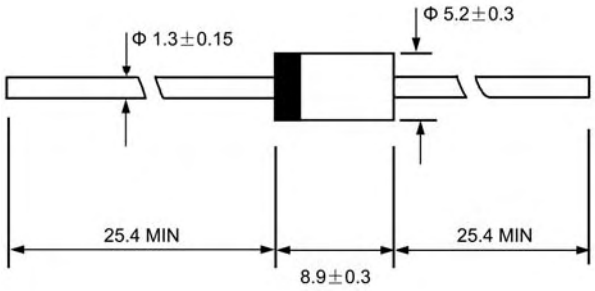
RN3Z

High Efficiency Rectifier

VOLTAGE RANGE: 200 V
CURRENT: 3.0 A

DO - 27



Dimensions in millimeters

Features

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case:JEDEC DO--27,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces,1.15 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		RN3Z	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	
Maximum DC blocking voltage	V_{DC}	200	
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	80.0	A
Maximum instantaneous forward voltage @ 3.0 A	V_F	0.92	V
Maximum reverse current @T_A=25℃	I_R	50.0	μA
at rated DC blocking voltage @T_A=100℃		1000.0	
Maximum reverse recovery time (Note1)	t_{rr}	50	ns
Typical junction capacitance (Note2)	C_J	70	pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	30	℃/W
Operating junction temperature range	T_J	- 55 ---- + 150	℃
Storage temperature range	T_{STG}	- 55 ---- + 150	℃

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.

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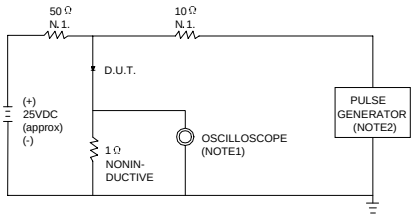
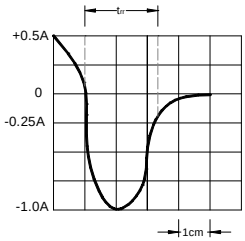
Ratings AND Charactieristic Curves

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

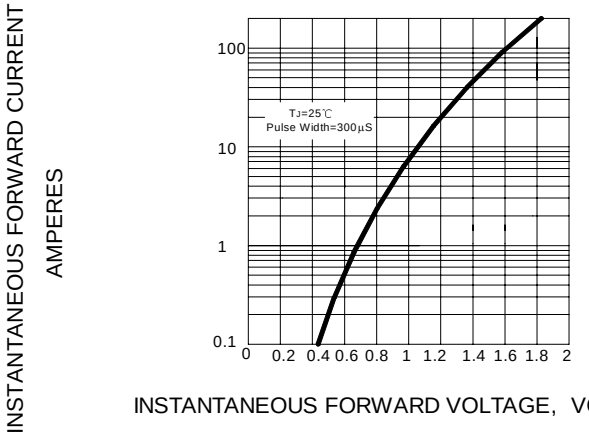


FIG.3 --FORWARD DERATING CURVE

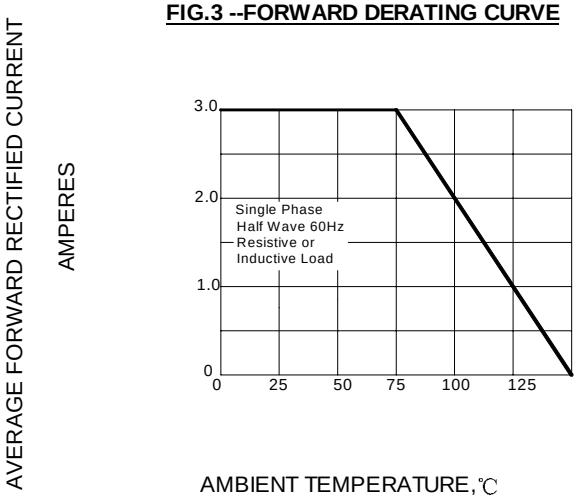


FIG.4 --TYPICAL JUNCTION CAPACITANCE

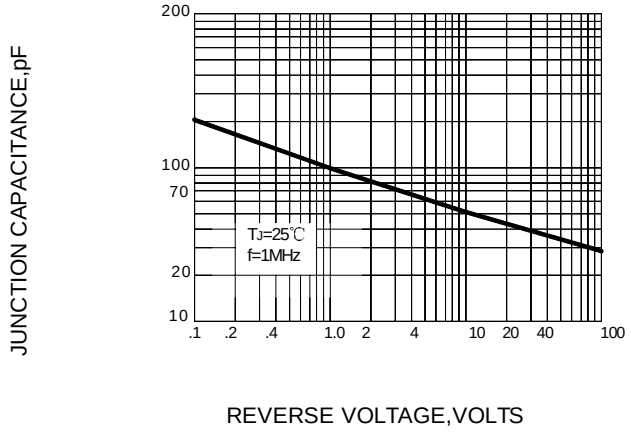


FIG.5--PEAK FORWARD SURGE CURRENT