ERC35-02

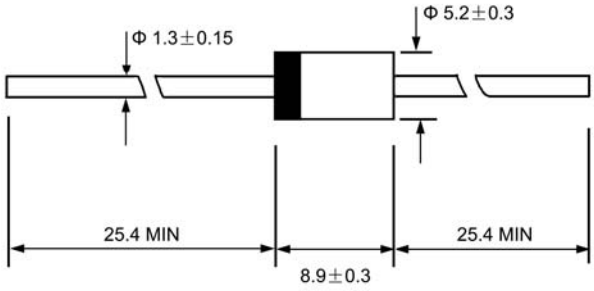
High Efficiency Rectifier

VOLTAGE RANGE: 200 V
CURRENT: 2.5 A

DO - 27

Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ 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



Dimensions in millimeters

Mechanical Data

- ◇ Case:JEDEC DO--27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041ounces,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%.

		ERC35 - 02	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.5	A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	50.0	A
Maximum instantaneous forw ard voltage @ 2.5A	V_F	1.2	V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 100.0	μA
Maximum reverse recovery time (Note1)	t_{rr}	100	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 1.0MH_Z and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

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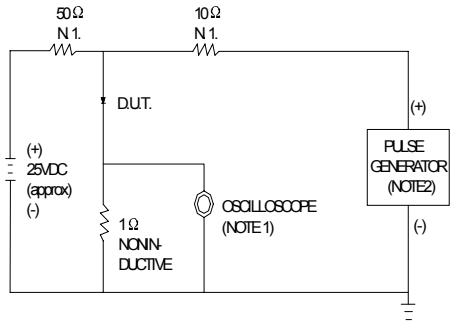
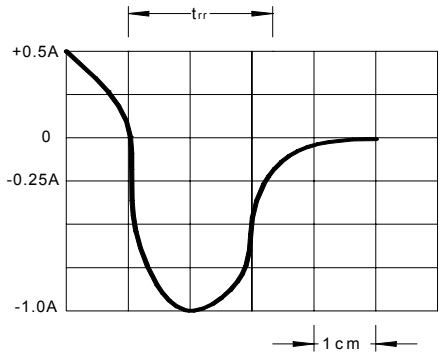
Ratings AND Charactieristic Curves

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=50Ω.

SET TIME BASE FOR 20/30 ns/cm

FIG.3 --FORWARD DERATING CURVE

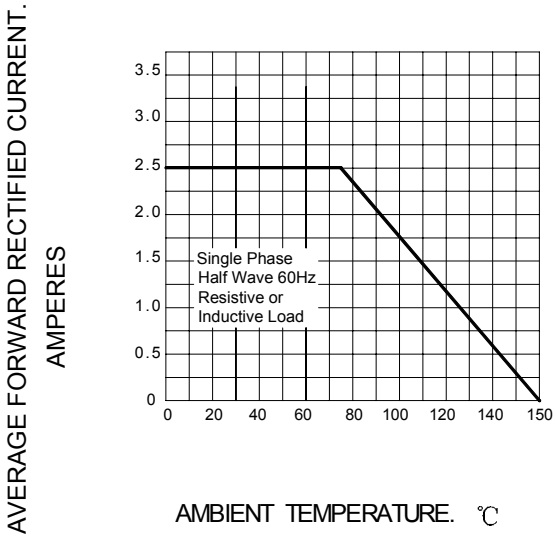


FIG.4--TYPICAL FORWARD CHARACTERISTIC

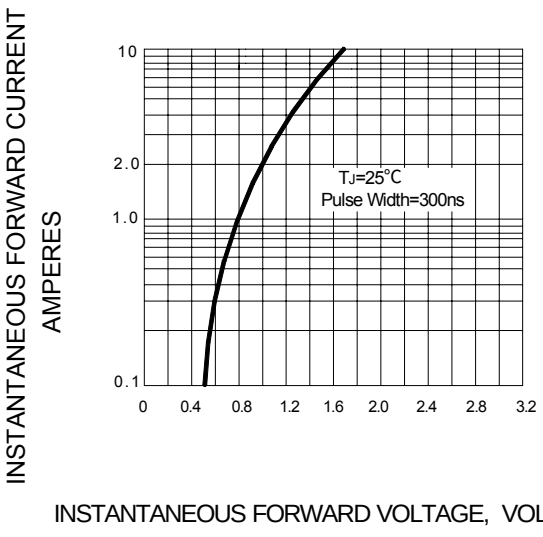


FIG.5--PEAK FORWARD SURGE CURRENT

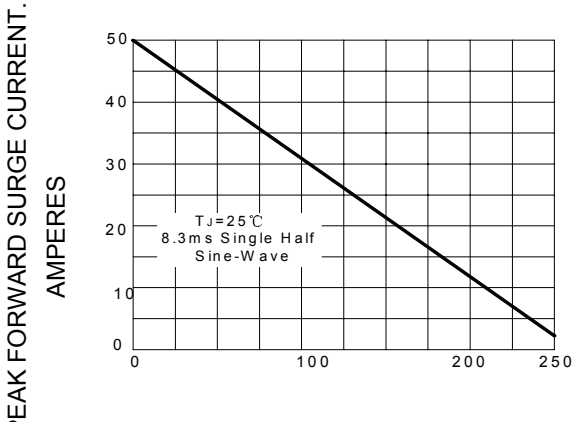


FIG.6--TYPICAL JUNCTION CAPACITANCE