ERD29-02--ERD29-06

Fast Recovery Rectifiers

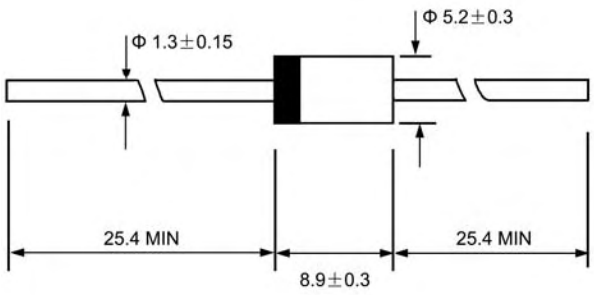
VOLTAGE RANGE: 200 --- 600 V
CURRENT: 2.5 A



Features

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

DO - 27



Dimensions in millimeters

Mechanical Data

- ◇ Case:JEDEC DO-27,molded plastic
- ◇ 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%.

		ERD29-02	ERD29-04	ERD29-06	UNITS
Maximum recurrent peak 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℃	$I_{F(AV)}$	2.5			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	150.0			A
Maximum instantaneous forward voltage @ 2.5 A	V_F	1.1			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	22			pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	35			℃/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.

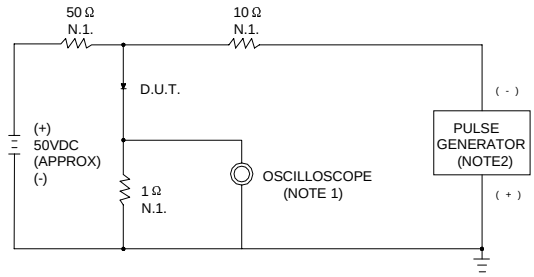
http://www.luguang.cn **mail:lge@luguang.cn**

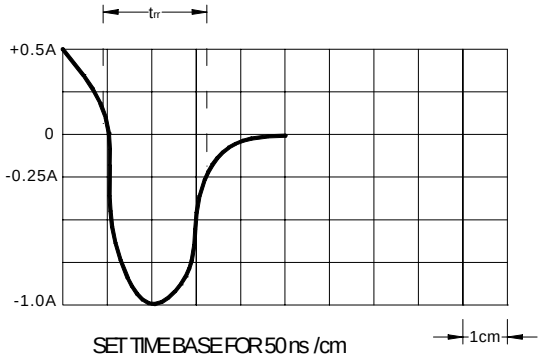
ERD29-02--ERD29-06

Fast Recovery Rectifiers

Ratings AND Charactieristic Curves

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





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

SET TIME BASE FOR 50 ns /cm

FIG.2 –TYPICAL FORWARD CHARACTERISTIC

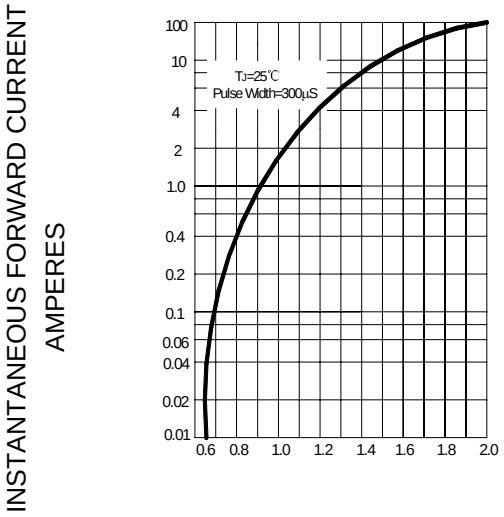


FIG.3 – FORWARD DERATING CURVE

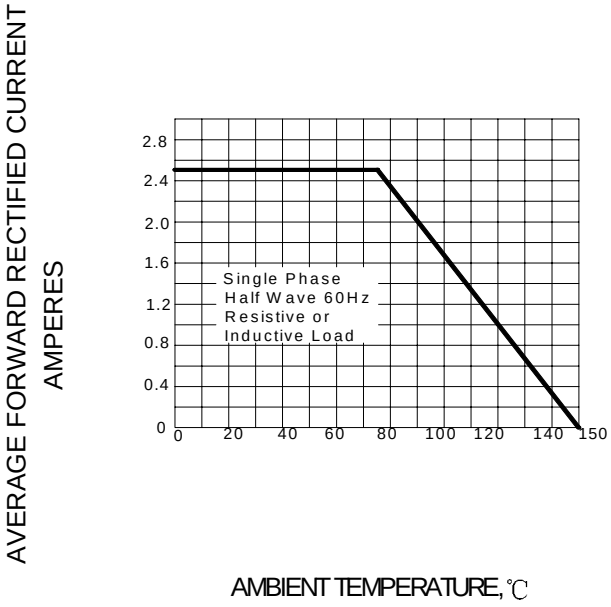


FIG.4–TYPICAL JUNCTION CAPACITANCE

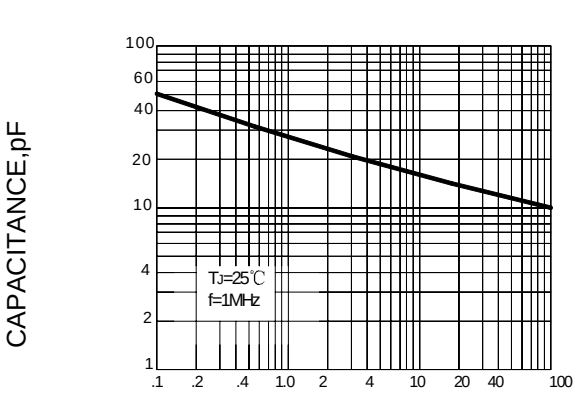


FIG.5–PEAK FORWARD SURGE CURRENT

