ERC25-04--ERC25-06

Fast Recovery Rectifiers

RoHS COMPLIANT



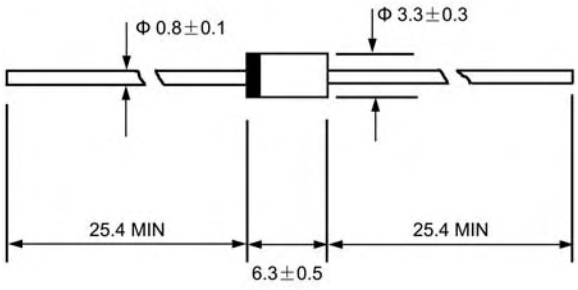
VOLTAGE RANGE: 400 --- 600 V

CURRENT: 1.2 A

DO - 15

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



Dimensions in millimeters

Mechanical Data

- ◇ Case:JEDEC DO-15,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces,0.39 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%.

		ERC25 - 04	ERC25 - 06	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	400	600	V
Maximum RMS voltage	V_{RMS}	280	420	V
Maximum DC blocking voltage	V_{DC}	400	600	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.2		A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	50.0		A
Maximum instantaneous forward voltage @ 1.2 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}	400		ns
Typical junction capacitance (Note2)	C_J	18		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	45		℃/W
Operating junction temperature range	T_J	-55----+150		℃
Storage temperature range	T_{STG}	-55----+150		℃

NOTE:1. Measured with IF=0.5A, IR=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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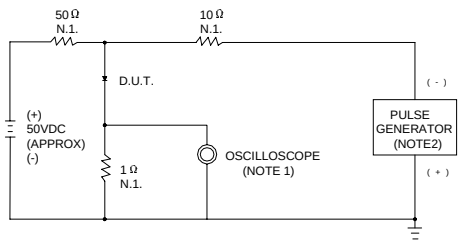
ERC25-04--ERC25-06

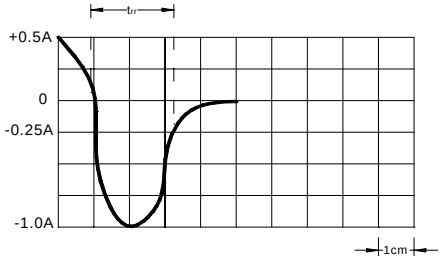
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Ratings AND Charactieristic Curves

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

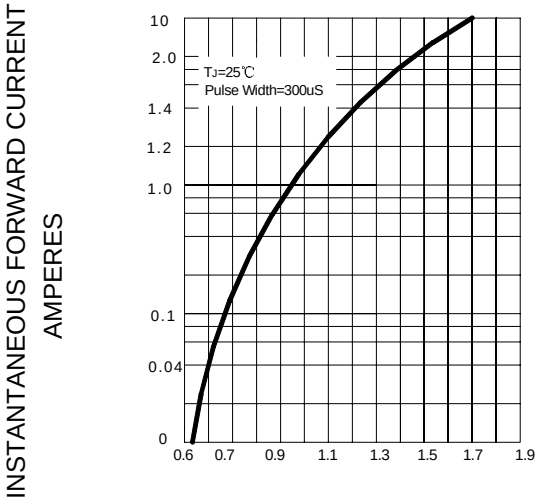




NOTES:1.RISE TIME=7ns MAX. INPUT IMPEDANCE=1MΩ.22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

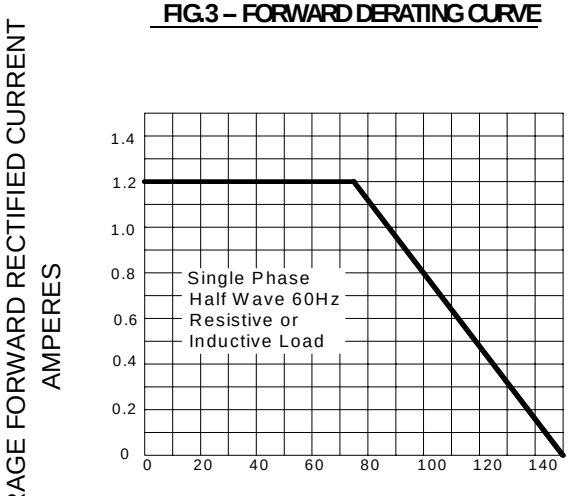
SET TIME BASE FOR 50/100 ns /cm

FIG.2 –TYPICAL FORWARD CHARACTERISTIC



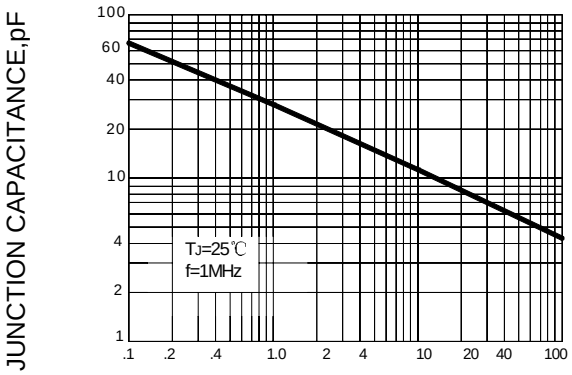
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 – FORWARD DERATING CURVE



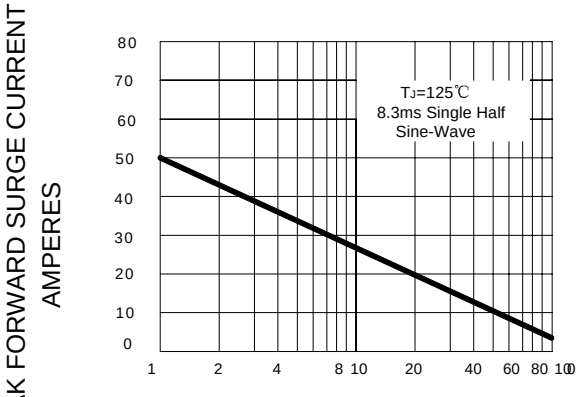
AMBIENT TEMPERATURE, ℃

FIG.4–TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS

FIG.5–PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60 Hz

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
DO-15	3000/AMMO	30000	42X28X31	12.00	10.00

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