SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 1.0 A

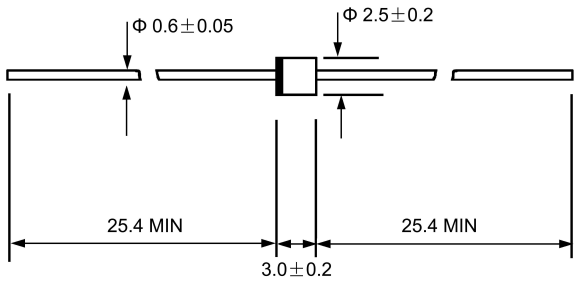
FEATURES

- ◇ 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

MECHANICAL DATA

- ◇ Case:JEDEC R--1,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.007ounces,0.20 grams
- ◇ Mounting position: Any

R - 1



Dimensions in millimeters

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%.

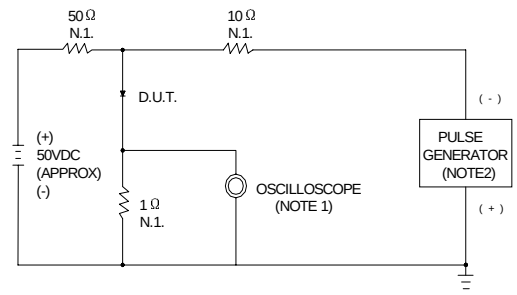
		1E1	1E2	1E3	1E4	1E5	1E6	1E7	1E8	1E9	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	1000	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0									A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	30									A
Maximum instantaneous forw ard voltage @1.0 A	V_F	0.95				1.25		2.2			V
Maximum reverse current @T_A=25℃	I_R	5.0									μA
at rated DC blocking voltage @T_A=100℃		150									
Maximum reverse recovery time (Note1)	t_{rr}	35									ns
Typical junction capacitance (Note2)	C_J	12									pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	55									℃/W
Operating junction temperature range	T_J	- 55---- +150									℃
Storage temperature range	T_{STG}	- 55---- + 150									℃

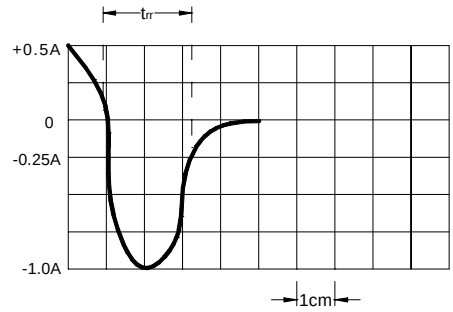
NOTE:1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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

3. Thermal resistance from junction to ambient.

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 15 ns /cm

FIG.2 –TYPICAL FORWARD CURRENT DERATING CURVE

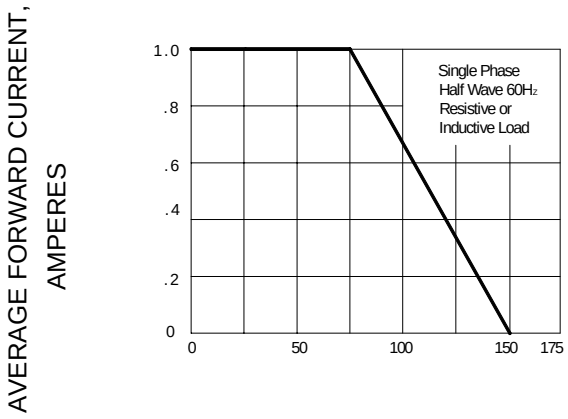


FIG.3--TYPICAL FORWARD CHARACTERISTICS

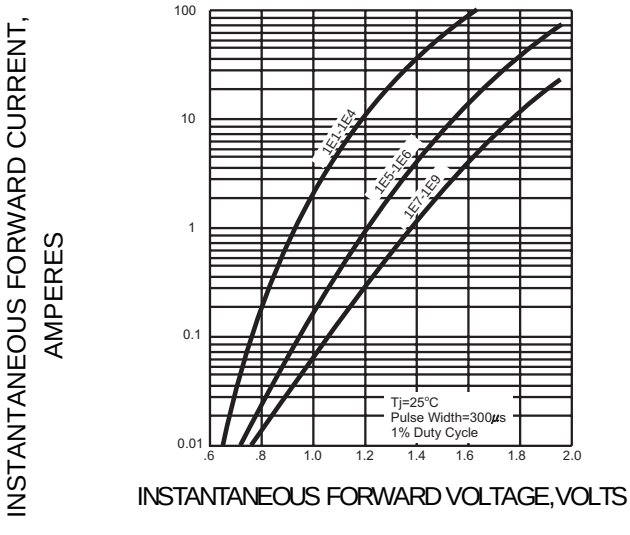


FIG.4--PEAK FORWARD SURGE CURRENT

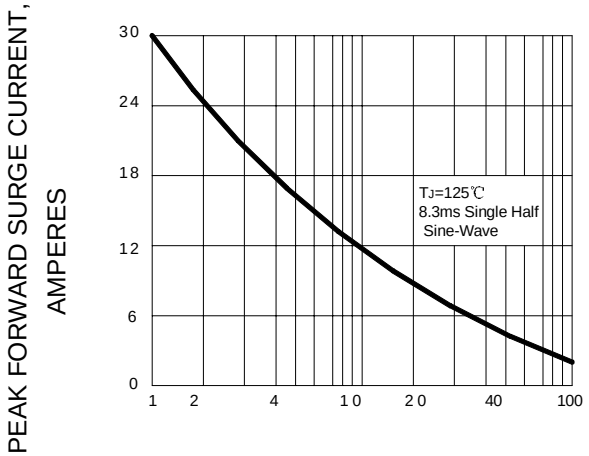


FIG.5--TYPICAL JUNCTION CAPACITANCE