1F1G-1F7G

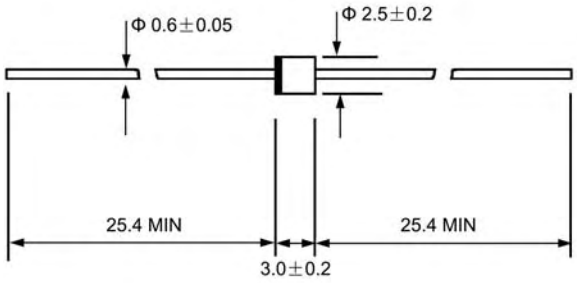
Fast Recovery Rectifiers

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

Features

- ◇ Low cost
- ◇ Glass passivated 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

R - 1



Dimensions in millimeters

Mechanical Data

- ◇ Case:JEDEC R--1,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.007ounces,0.20 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%.

		1F1G	1F2G	1F3G	1F4G	1F5G	1F6G	1F7G	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	25.0							A
Maximum instantaneous forward voltage @1.0 A	V_F	1.3							V
Maximum reverse current @T_A=25℃	I_R	5.0							μA
at rated DC blocking voltage @T_A=100℃		100.0							
Maximum reverse recovery time (Note1)	t_{rr}	150				250	500		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.

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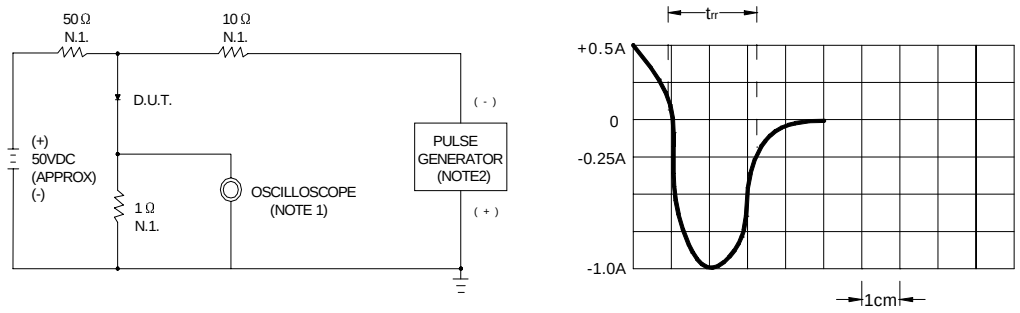
Ratings AND Charactieristic Curves

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 50/100 ns /cm

FIG.2 –TYPICAL FORWARD CURRENT DERATING CURVE

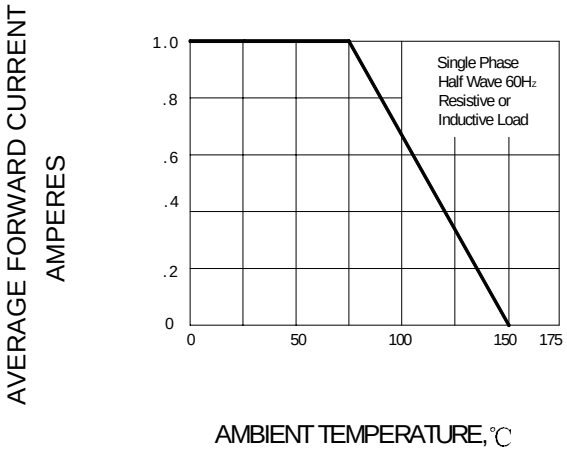


FIG.3 –TYPICAL FORWARD CHARACTERISTICS

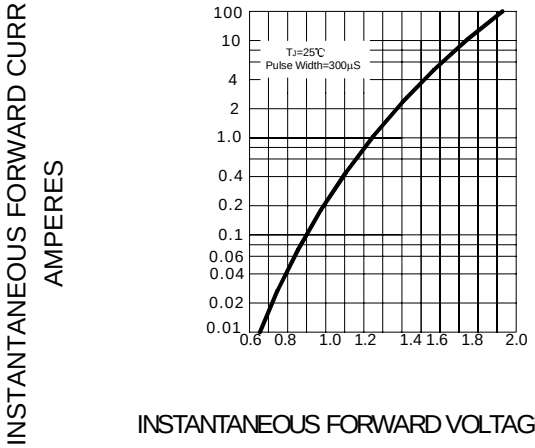


FIG.4--PEAK FORWARD SURGE CURRENT

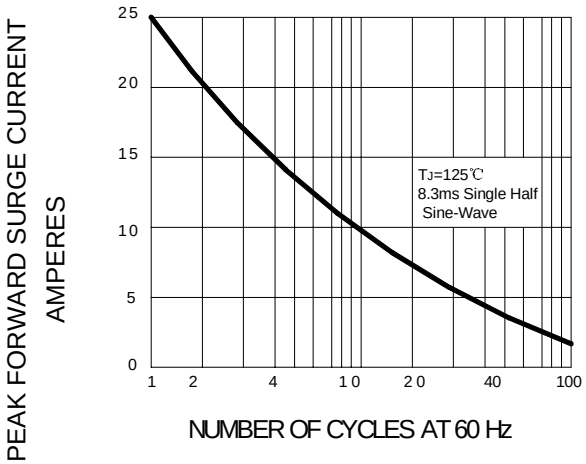


FIG.5--TYPICAL JUNCTION CAPACITANCE