



Features

- ◇ Fast switching
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents

Mechanical Data

- ◇ Case: JEDEC R--1, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.007 ounces, 0.20 grams
- ◇ Mounting position: Any

R - 1



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

		1F10	1F12	1F14	1F15	1F16	1F18	1F20	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	1000	1200	1400	1500	1600	1800	2000	V
Maximum RMS voltage	V_{RMS}	700	840	980	1050	1120	1260	1400	V
Maximum DC blocking voltage	V_{DC}	1000	1200	1400	1500	1600	1800	2000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	0.5							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_J=125^\circ\text{C}$	I_{FSM}	25.0							A
Maximum instantaneous forward voltage @ 0.5 A	V_F	1.8							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 100.0							μA
Maximum reverse recovery time (NOTE1)	t_{rr}	300							ns
Typical junction capacitance (NOTE2)	C_J	15							pF
Operating junction temperature range	T_J	-55 --- + 150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 --- + 150							$^\circ\text{C}$

 NOTE: 1. Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.

2. Measured at 1MHz and applied reverse voltage of 4.0V.

Ratings AND Characteristic Curves

FIG.1 – FORWARD DERATING CURVE

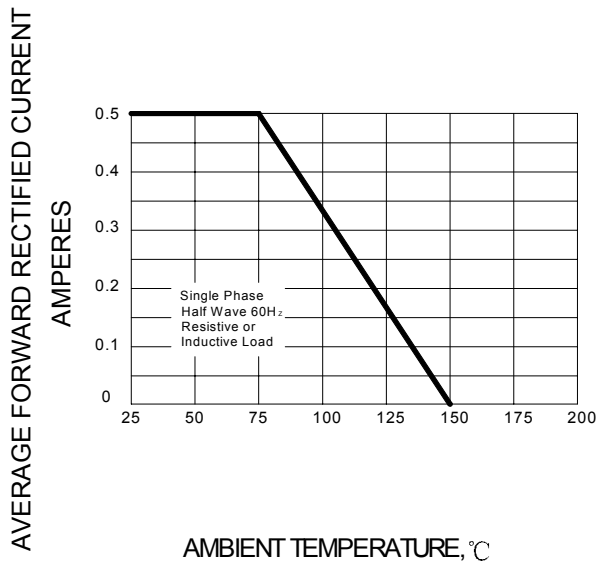


FIG.2 – PEAK FORWARD SURGE CURRENT

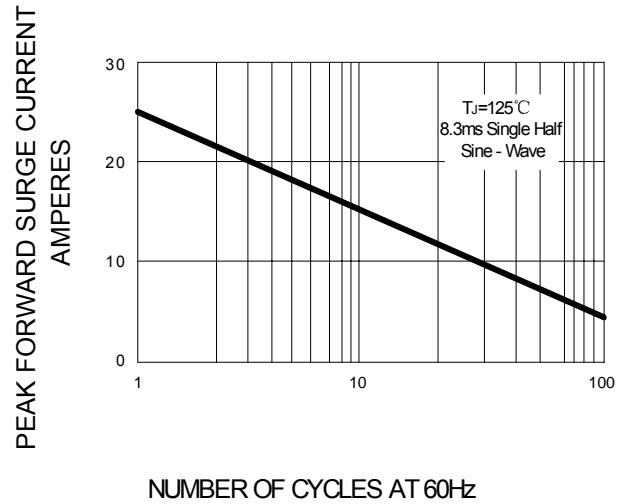
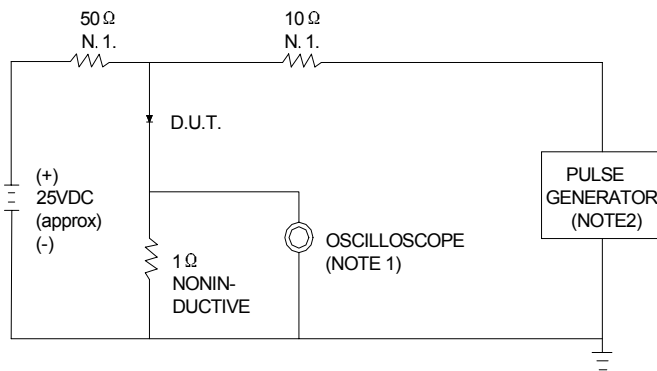


FIG.3 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = $1\text{M}\Omega$, 22pF.
 2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = $50\ \Omega$.

