

PHOTO FLASH RECTIFIERS

VOLTAGE RANGE: 1000 --- 2000 V
CURRENT: 0.5 A

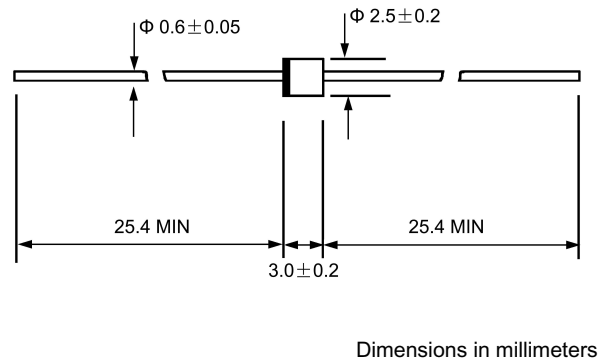
FEATURES

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

R - 1



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, @ $T_A = 75^\circ C$	$I_{F(AV)}$	0.5							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_J = 125^\circ C$	I_{FSM}	25.0							A
Maximum instantaneous forward voltage @ 0.5 A	V_F	1.8							V
Maximum reverse current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 100^\circ C$	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							$^\circ C$
Storage temperature range	T_{STG}	-55 --- + 150							$^\circ C$

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

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

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FIG.1 -- FORWARD DERATING CURVE

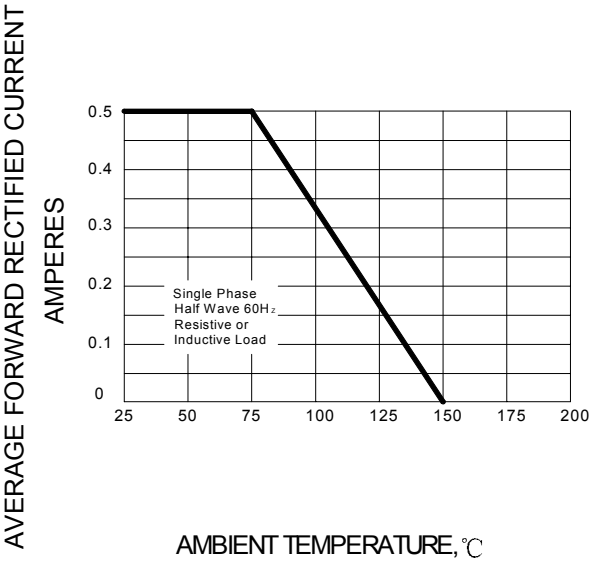


FIG.2 -- PEAK FORWARD SURGE CURRENT

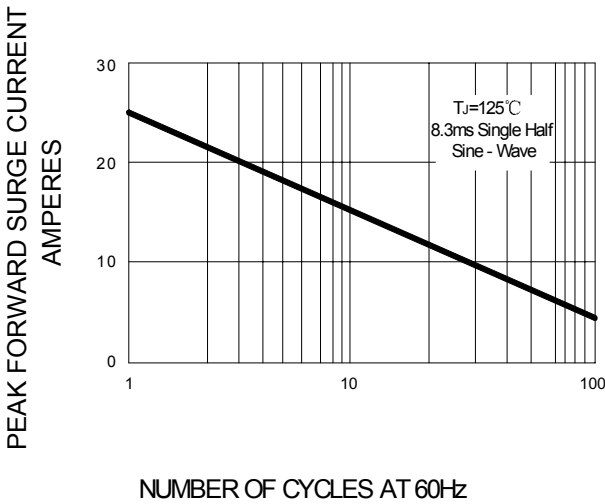
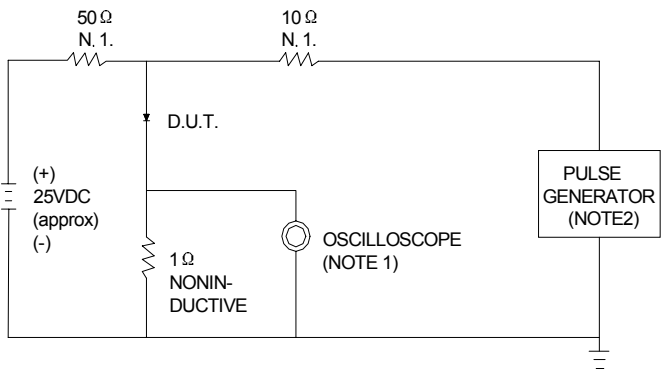


FIG.3 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

