

VOLTAGE RANGE: 1000 - 1800V
CURRENT: 1.0 A

Features

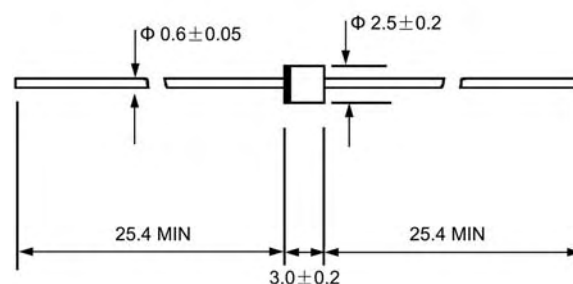
- Fast switching
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents

Mechanical Data

- Case: JEDEC R-1, molded plastic
- 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 T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	1A10F	1A12F	1A14F	1A15F	1A16F	1A18F	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	1000	1200	1400	1500	1600	1800	V
Maximum RMS voltage	V _{RMS}	700	840	980	1050	1120	1260	V
Maximum DC blocking voltage	V _{DC}	1000	1200	1400	1500	1600	1800	V
Maximum average forward rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T _J =125°C	I _{FSM}	30.0						A
Maximum instantaneous forward voltage @ 1.0 A	V _F	1.3						V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°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						°C
Storage temperature range	T _{STG}	-55 ---- + 150						°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.

FIG.1 – FORWARD DERATING CURVE

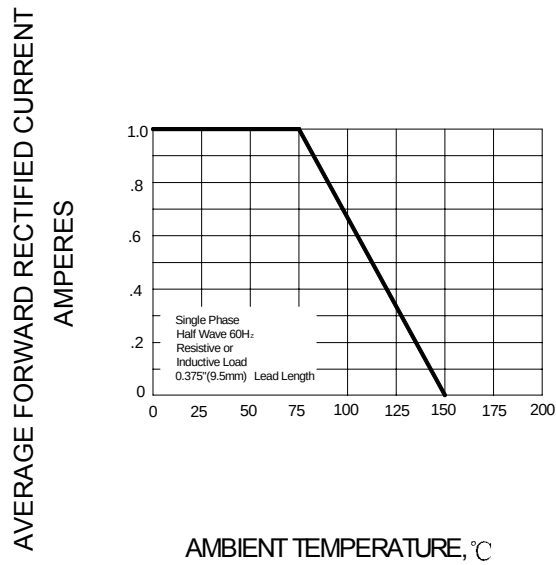


FIG.2 – PEAK FORWARD SURGE CURRENT

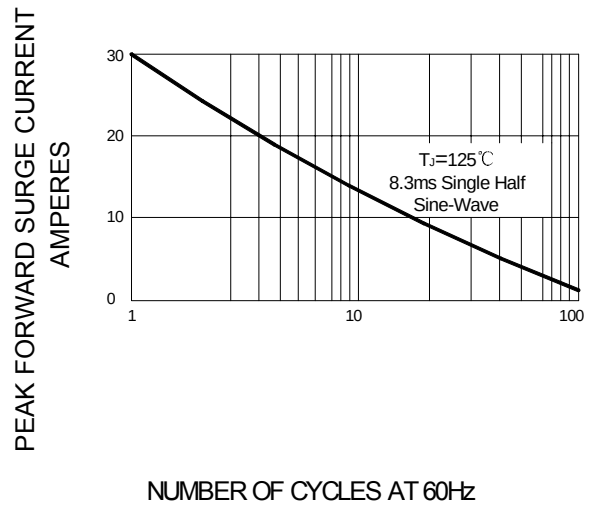
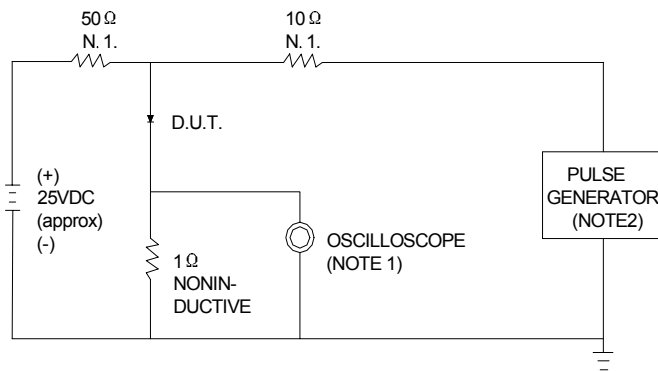


FIG.3 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

