

**VOLTAGE RANGE: 1000 --- 1800 V**

**CURRENT: 1.0A**



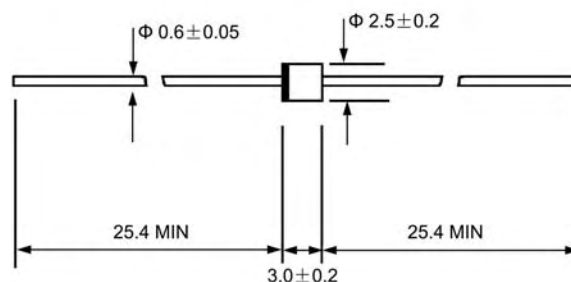
## Features

- ◇ 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%.

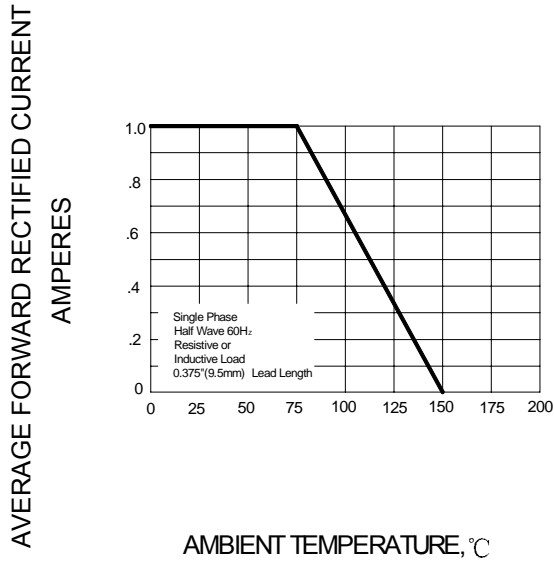
		1A10F	1A12F	1A14F	1A15F	1A16F	1A18F	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	1000	1200	1400	1500	1600	1800	V
Maximum RMS voltage	$V_{RMS}$	700	840	980	1050	1120	1260	V
Maximum DC blocking voltage	$V_{DC}$	1000	1200	1400	1500	1600	1800	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_J=125^\circ C$	$I_{FSM}$	30.0						A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	1.3		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						$\mu A$
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:  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$ .

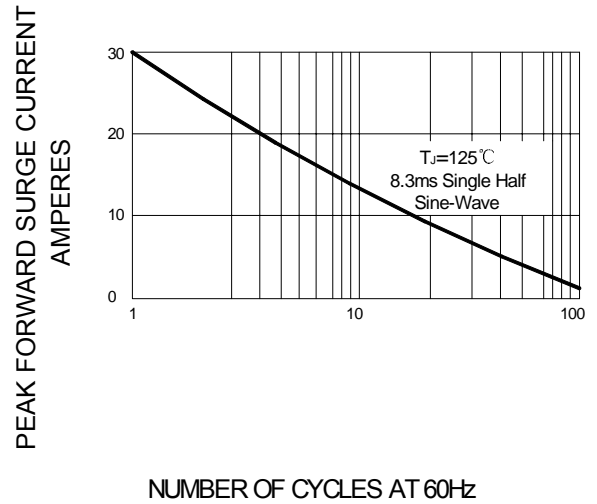
2. Measured at 1MHz and applied reverse voltage of 4.0V.

## Ratings AND Characteristic Curves

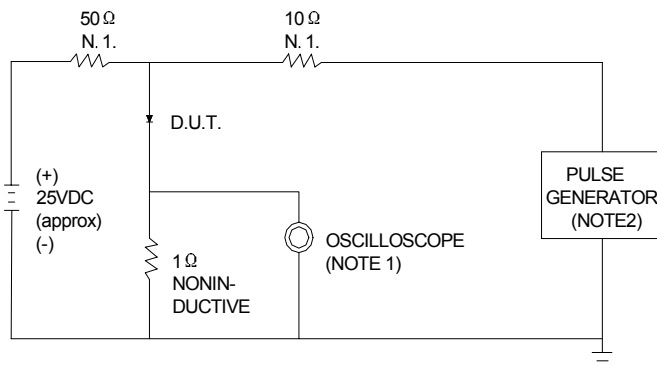
**FIG.1 – FORWARD DERATING CURVE**



**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 =  $50\ \Omega$ .

