



# 1T1 THRU 1T7

## 1.0 AMP. Silicon Rectifiers



Voltage Range  
50 to 1000 Volts  
Current  
1.0 Ampere

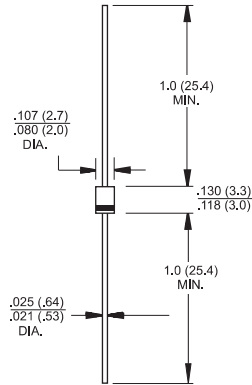
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ 3mm miniature body

### Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.20 gram

### TS-1



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

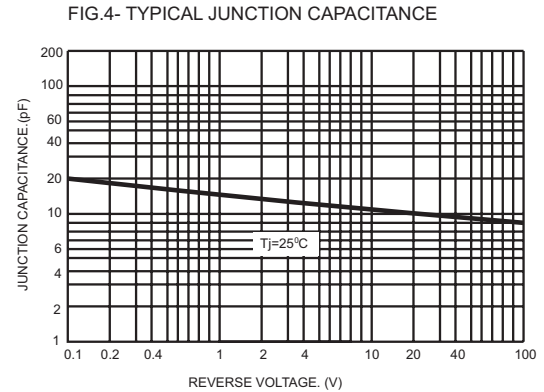
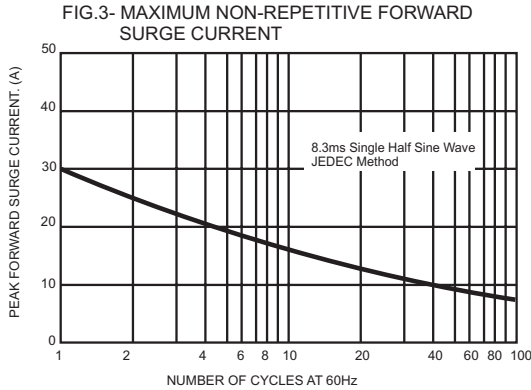
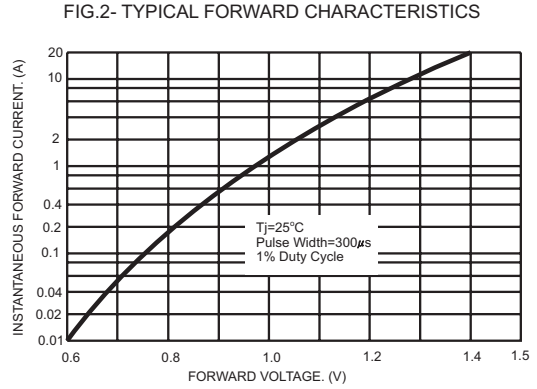
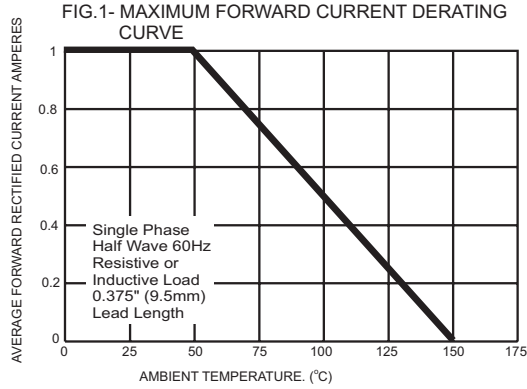
For capacitive load, derate current by 20%

Type Number	Symbol	1T1	1T2	1T3	1T4	1T5	1T6	1T7	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 .375" (9.5mm) Lead Length @ $T_A = 50^\circ C$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	1.0							V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	$I_R$	5.0 50							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375" (9.5mm) Lead Length @ $T_A=50^\circ C$	HTIR	30							uA
Typical Junction Capacitance ( Note 1 )	$C_j$	15							pF
Typical Thermal Resistance ( Note 2 )	$R\theta_{JA}$	50							°C/W
Operating Temperature Range	$T_J$	-65 to +150							°C
Storage Temperature Range	$T_{STG}$	-65 to +150							°C

Notes:1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

2. Mount on Cu-pad size 5mm x 5mm on P.C.B.

## RATINGS AND CHARACTERISTIC CURVES (1T1 THRU 1T7)



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**

