



1T1 THRU 1T7

1.0 AMP. Silicon Rectifiers

Voltage Range
50 to 1000 Volts
Current
1.0 Ampere

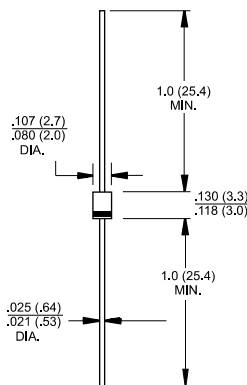
Features

- ✧ 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: 250°C/10 seconds/.375"(.95mm) 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	1T1	1T2	1T3	1T4	1T5	1T6	1T7	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T _A = 50°C	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage @1.0A	1.0							V
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =100°C	5.0 50							uA uA
Maximum Full Load Reverse Current ,Full Cycle Average .375"(9.5mm) Lead Length @T _A =50°C	30							uA
Typical Junction Capacitance (Note 1)	15							pF
Typical Thermal Resistance R θ JA (Note 2)	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. Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length.

RATINGS AND CHARACTERISTIC CURVES (1T1 THRU 1T7)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

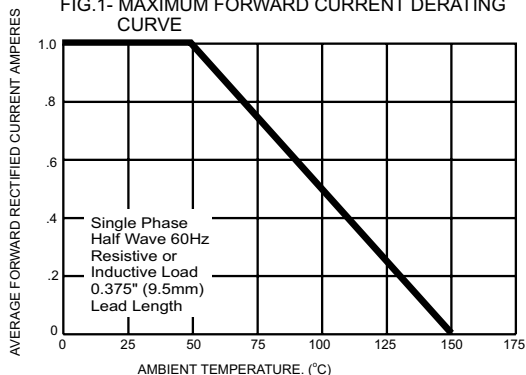


FIG.2- TYPICAL FORWARD CHARACTERISTICS

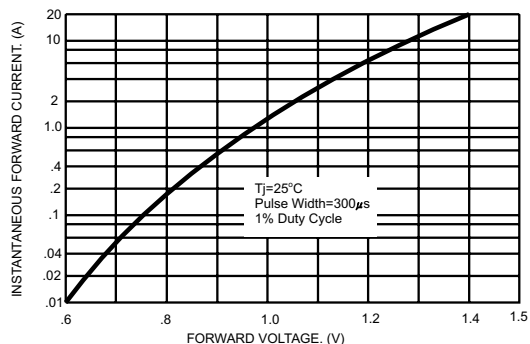


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

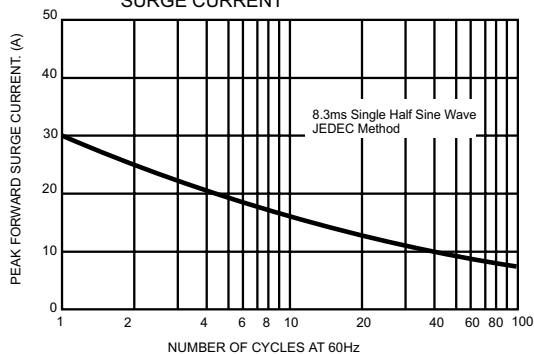


FIG.4- TYPICAL JUNCTION CAPACITANCE

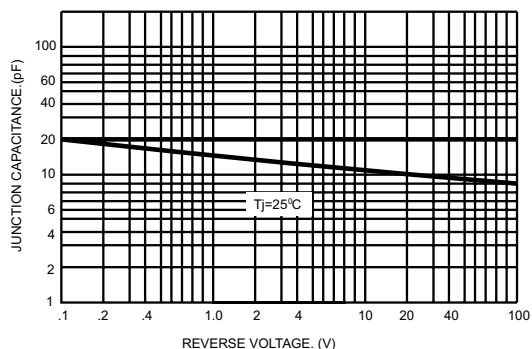


FIG.5- TYPICAL REVERSE CHARACTERISTICS

