




# HT11G THRU HT18G

## 1.0 AMP. Glass Passivated High Efficient Rectifiers

|   |  |
|---|--|
|  | <b>Voltage Range</b><br>50 to 1000 Volts<br><b>Current</b><br>1.0 Ampere |
|---|--|

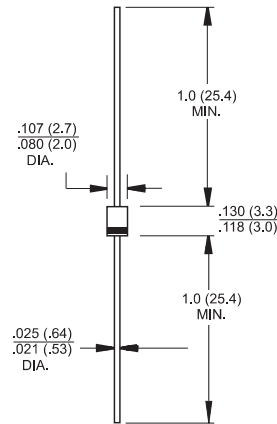
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Case: Molded plastic TS-1
- ✧ Epoxy: UL 94V-O 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
- ✧ Mounting position: Any
- ✧ 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          | HT 11G      | HT 12G | HT 13G | HT 14G | HT 15G | HT 16G | HT 17G | HT 18G | Units    |
|---|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------|----------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 50          | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | V        |
| Maximum RMS Voltage   | $V_{RMS}$       | 35          | 70     | 140    | 210    | 280    | 420    | 560    | 700    | V        |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 50          | 100    | 200    | 300    | 400    | 600    | 800    | 1000   | V        |
| Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 55^\circ C$             | $I_{(AV)}$      | 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         |        |        | 1.3    |        | 1.7    |        |        | V        |
| Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$      | $I_R$           | 5.0         |        |        |        | 150    |        |        |        | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)  | $T_{rr}$        | 50          |        |        |        | 75     |        |        |        | nS       |
| Typical Junction Capacitance (Note 2)   | $C_j$           | 15          |        |        |        | 10     |        |        |        | pF       |
| Typical Thermal Resistance (Note 3)   | $R_{\theta JA}$ | 95          |        |        |        |        |        |        |        | °C/W     |
| Operating Temperature Range   | $T_J$           | -65 to +150 |        |        |        |        |        |        |        | °C       |
| Storage Temperature Range   | $T_{STG}$       | -65 to +150 |        |        |        |        |        |        |        | °C       |

Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Mount on cu-Pad Size 5mm x 5mm on PCB.

## RATINGS AND CHARACTERISTIC CURVES (HT11G THRU HT18G)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

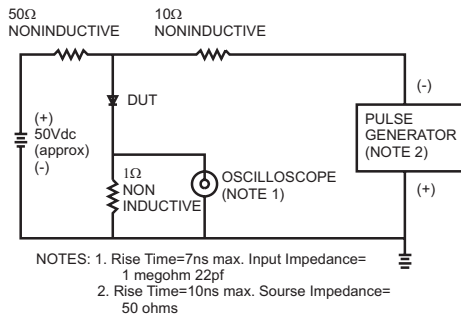


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

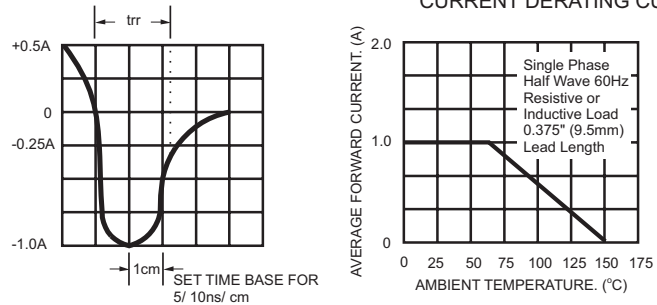


FIG.3- TYPICAL REVERSE CHARACTERISTICS

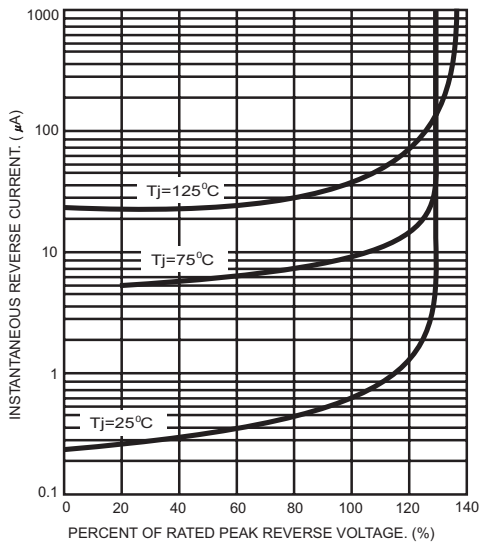


FIG.4- TYPICAL FORWARD CHARACTERISTICS

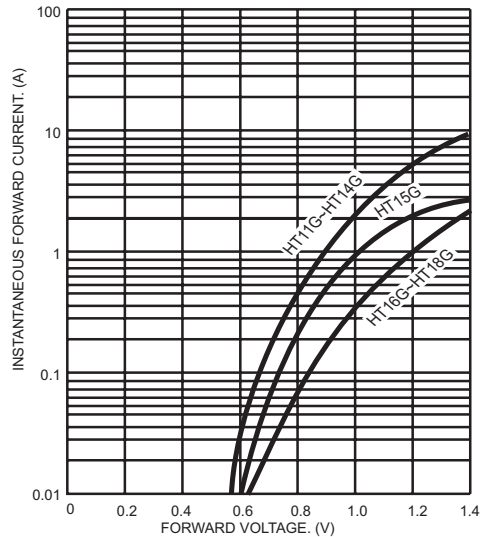


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

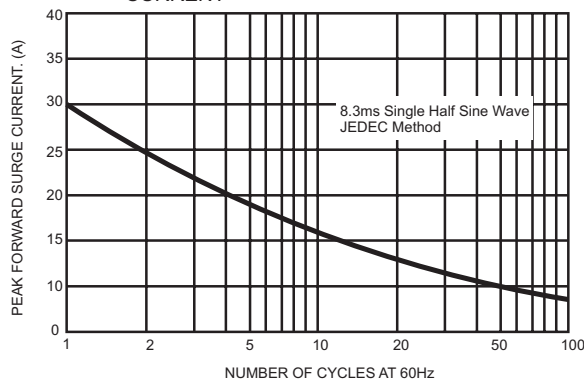


FIG.6- TYPICAL JUNCTION CAPACITANCE

