

HT11 - HT18

1.0 AMP. High Efficient Rectifiers

TS-1

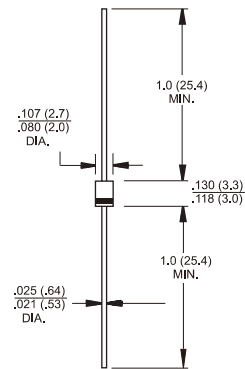
Features

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Case: Molded plastic TS-1
- ✧ Epoxy: UL 94V0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ 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 grams

Dimensions in inches and (millimeters)



Marking Diagram



HT1X = Specific Device Code
G = Green Compound
Y = Year
M = Work Month

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 11	HT 12	HT 13	HT 14	HT 15	HT 16	HT 17	HT 18	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @T _A = 55 °C	IF(AV)	1.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	30								A
Maximum Instantaneous Forward Voltage @ 1.0A	VF	1.0				1.3	1.7			V
Maximum DC Reverse Current at @ T _A =25°C Rated DC Blocking Voltage(Note 1)@T _A =125°C	IR	5.0 150								uA uA
Maximum Reverse Recovery Time (Note 4)	Trr	50					75			nS
Typical Junction Capacitance (Note 2)	Cj	20					15			pF
Typical Thermal Resistance (Note 3)	RθJA	100								°C/W
Operating Temperature Range	TJ	-65 to +150								°C
Storage Temperature Range	TSTG	-65 to +150								°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
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.
4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (HT11 THRU HT18)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

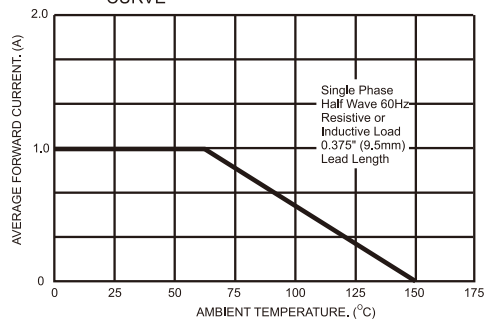


FIG.2- TYPICAL REVERSE CHARACTERISTICS

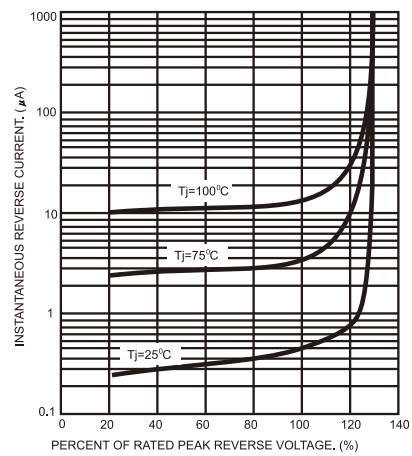


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

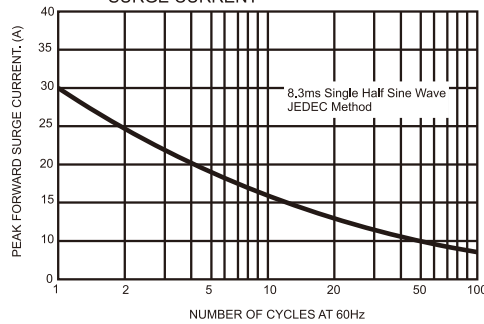


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

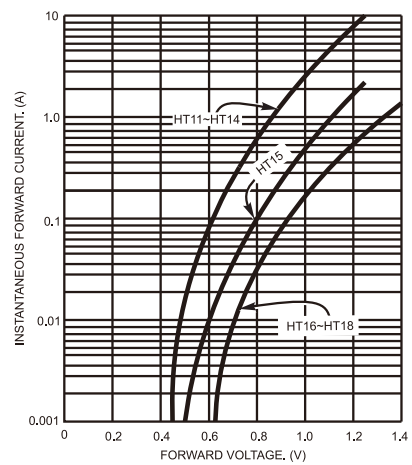


FIG.4- TYPICAL JUNCTION CAPACITANCE

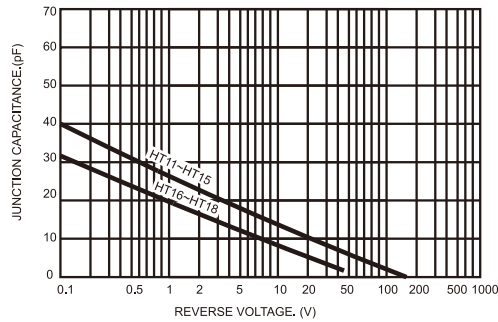


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

