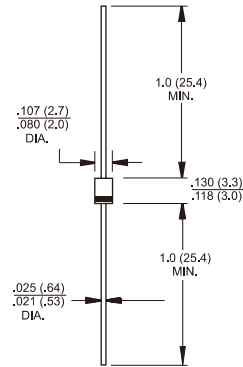


F1T1 - F1T7

1.0 AMP. Fast Recovery Rectifiers

TS-1



Features

- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss.
- Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, Lead free., 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 grams

Dimensions in inches and (millimeters)

Marking Diagram



F1TX = 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	F1T1	F1T2	F1T3	F1T4	F1T5	F1T6	F1T7	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 = 55 °C	I _{F(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	1.2							V
Maximum DC Reverse Current at @ T _A =25°C Rated DC Blocking Voltage (Note 1) @ T _A =125°C	I _R	5.0 150							uA uA
Maximum Reverse Recovery Time (Note 4)	T _{rr}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C _j	10							pF
Typical Thermal Resistance (Note 3)	R _{θJA}	100							°C /W
Operating Temperature Range	T _J	-65 to +150							°C
Storage Temperature Range	T _{STG}	-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 Volts D.C.

3. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.

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

RATINGS AND CHARACTERISTIC CURVES (F1T1 THRU F1T7)

FIG.1- MAXIMUM TYPICAL FORWARD CURRENT DERATING CURVE

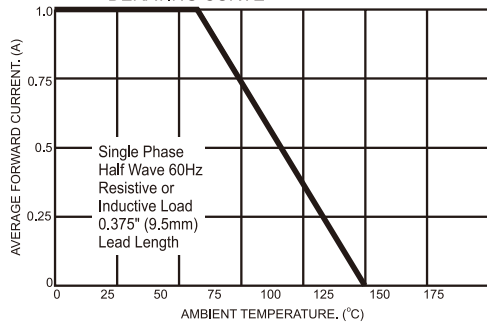


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER LEG

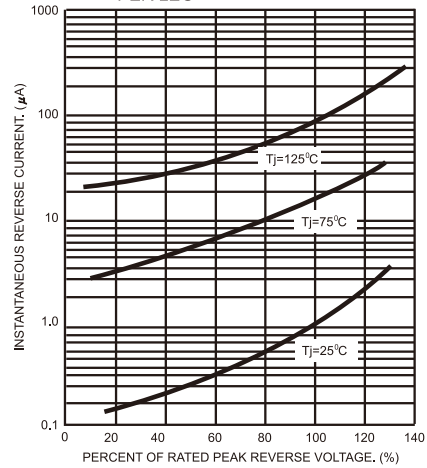


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

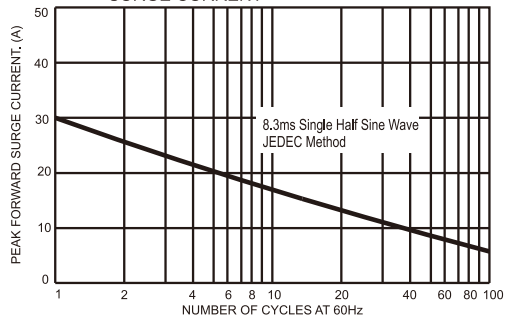


FIG.5- TYPICAL FORWARD CHARACTERISTICS

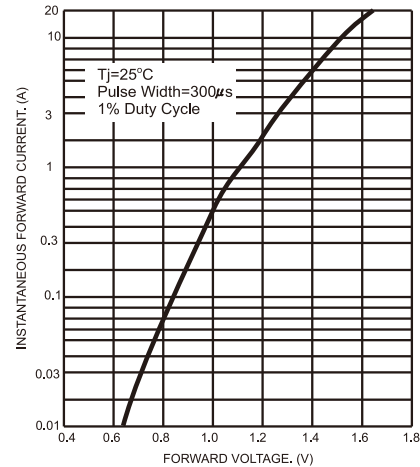


FIG.4- TYPICAL JUNCTION CAPACITANCE

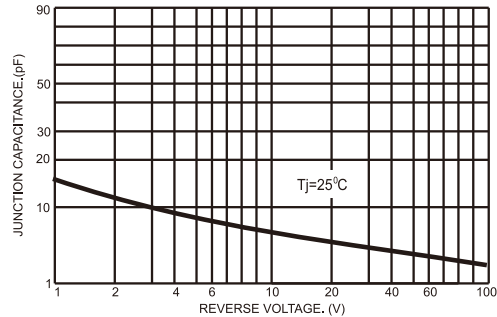


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

