

### Features

- ✧ Glass passivated chip junction
- ✧ 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/10s / .375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ✧ Mounting position: Any
- ✧ Weight: 0.20 grams

### Ordering Information (example)

Part No.	Package	Packing	INNER TAPE	Packing code	Green Compound Packing code
F1T1G	TS-1	3K / AMMO box	26mm	P0	P0G

### 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	F1T 1G	F1T 2G	F1T 3G	F1T 4G	F1T 5G	F1T 6G	F1T 7G	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	$I_{F(AV)}$	1							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 (Note 1) @ 1 A	$V_F$	1.3							V
Maximum DC Reverse Current at @ $T_A=25\text{ }^\circ\text{C}$	$I_R$	5							uA
Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$		150							uA
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	150			250	500			nS
Typical Junction Capacitance (Note 3)	$C_j$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	90							$^\circ\text{C/W}$
Operating Temperature Range $T_J$	$T_J$	- 65 to + 150							$^\circ\text{C}$
Storage Temperature Range $T_{STG}$	$T_{STG}$	- 65 to + 150							$^\circ\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.



RATINGS AND CHARACTERISTIC CURVES (F1T1G THRU F1T7G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

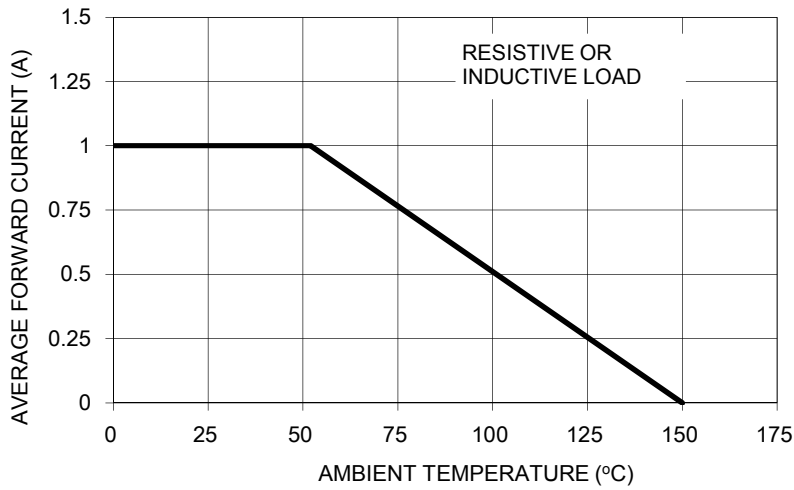


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

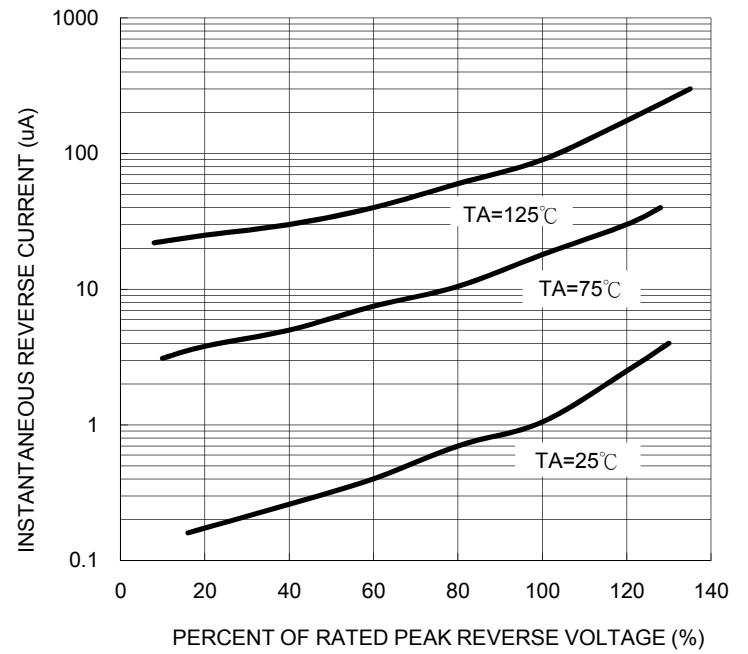


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

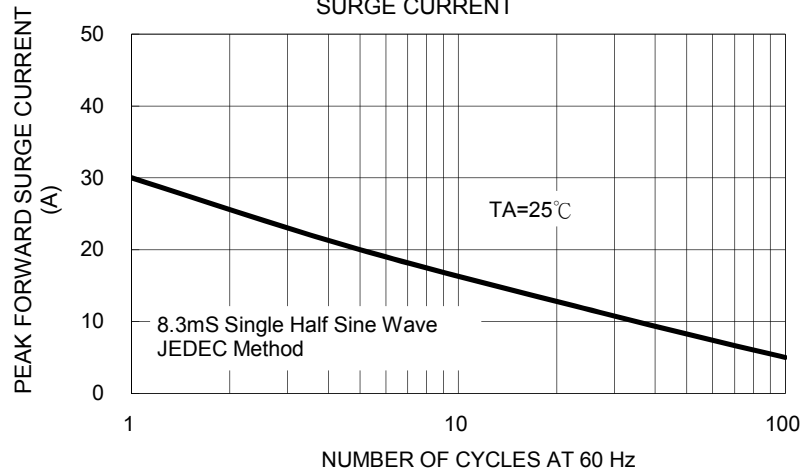


FIG. 5- TYPICAL FORWARD CHARACTERISTICS

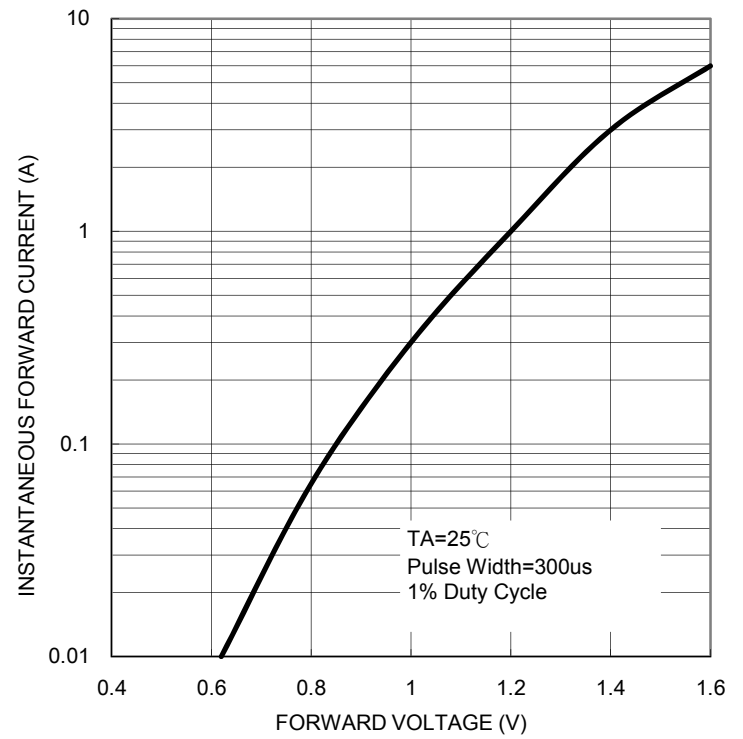


FIG. 4- TYPICAL JUNCTION CAPACITANCE

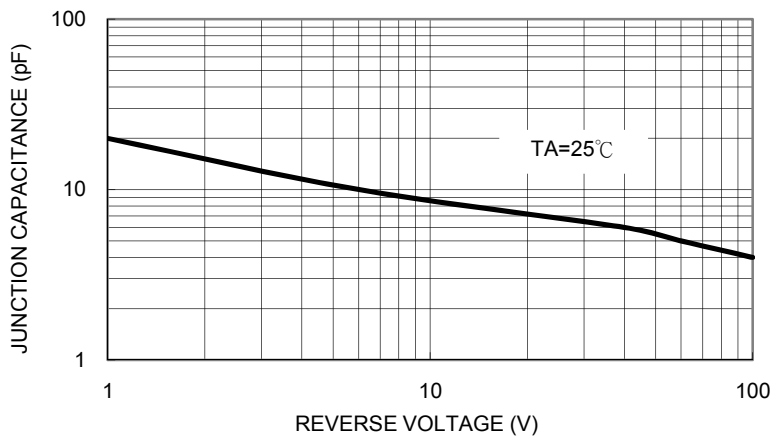
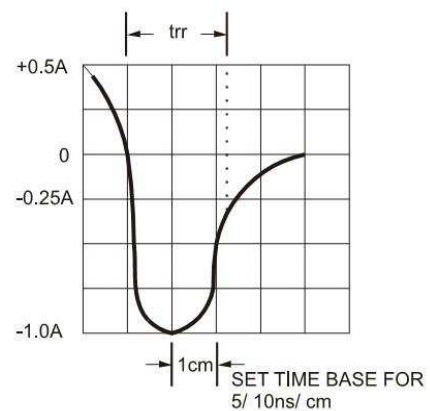
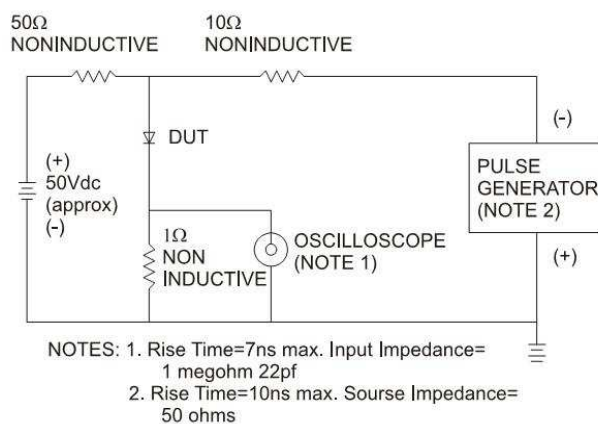


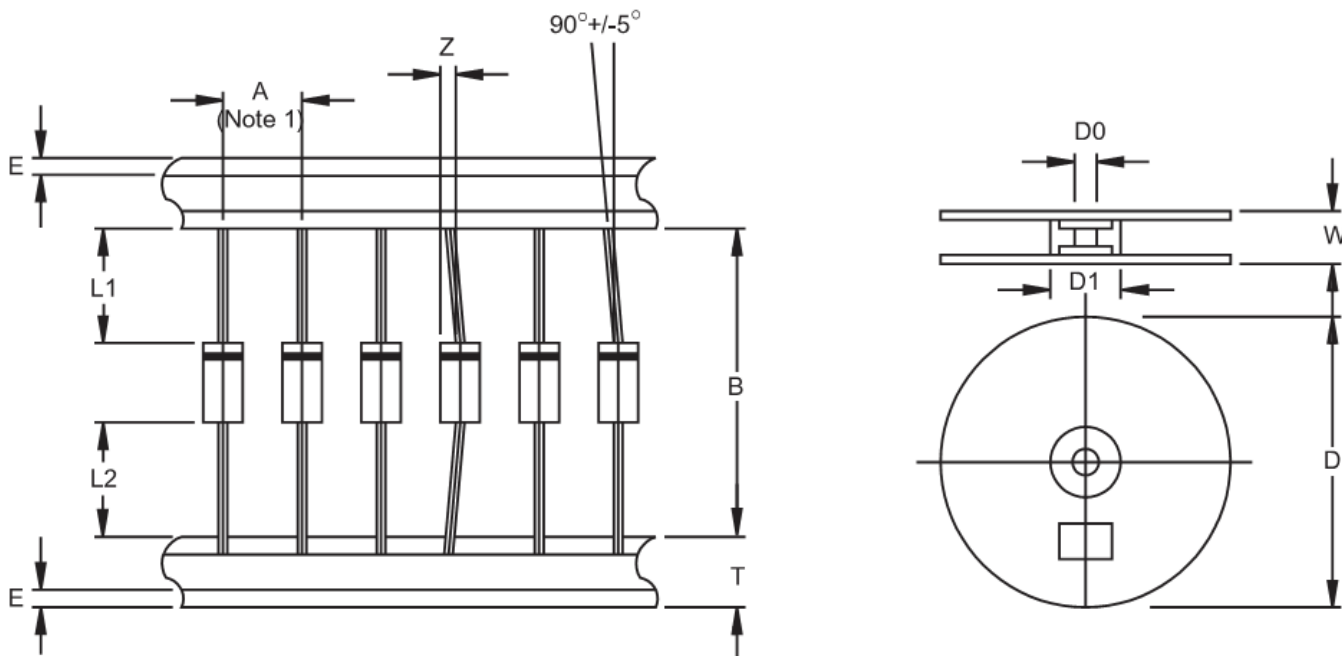
FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



**Ordering information**

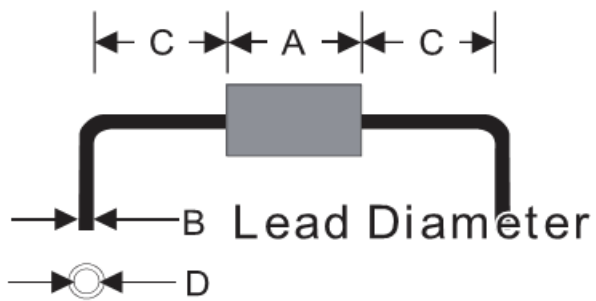
Part No.	Package	Packing	INNER TAPE	Packing code	Green Compound Packing code
F1TxG (Note)	TS-1	3K / AMMO box	26mm	A1	A1G
	TS-1	3K / AMMO box	52mm	A0	A0G
	TS-1	5K / 13" Reel	52mm	R0	R0G
	TS-1	1K / Bulk packing		B0	B0G

Note: "x" is Device Code from "1" thru "7".

**AXIAL LEAD TAPING SPECIFICATIONS**


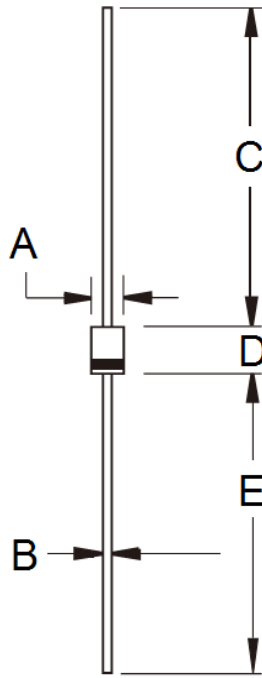
Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
		±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4
TS-1	5	26	1.2	6	0.8	1	330	85.7	16.6	76
TS-1	5	52.4	1.2	6	0.8	1	330	85.7	16.6	76

Unit (mm)

**Suggested Mounting Hole Rule**


Symbol	Unit(mm)
A	3
B	0.6
C	3.0
D	1

**Dimensions**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.53	0.64	0.021	0.025
C	25.40	-	1.000	-
D	3.00	3.30	0.118	0.130
E	25.40	-	1.000	-

**Marking Diagram**



- P/N = Specific Device Code
- G = Green Compound
- YW = Date Code