

Features

- ✧ Ultrafast 35 and 60 Nanosecond Recovery times
- ✧ 175°C operating Junction Temperature
- ✧ Popular TO-220AB Package
- ✧ Epoxy meets UL94, V0 @ 1/8"
- ✧ High temperature glass passivated junction
- ✧ High voltage capability to 600 volts
- ✧ Low leakage specified @ 150°C case temperature
- ✧ Current derating @ both case and ambient temperatures
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✧ Case: Epoxy, molded
- ✧ Terminal: Pure tin plated, lead free
- ✧ Lead temperature for soldering purposes:
260°C Max. for 10 seconds
- ✧ Finish: all external surfaces corrosion resistant and terminal leads are readily solderable
- ✧ Weight: 1.9 grams

Ordering information

Part No.	Package	BULK Packing	Packing code	Packing code (Green)
MUR1620CT	TO-220AB	50 / TUBE	C0	C0G

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	MUR 1620CT	MUR 1640CT	MUR 1660CT	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	16			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100			A
Maximum Instantaneous Forward Voltage (Note 1) @ $I_F=8\text{ A}$, $T_A=25^\circ\text{C}$ @ $I_F=8\text{ A}$, $T_A=150^\circ\text{C}$	V_F	0.975 0.895	1.3 1.1	1.5 1.2	V
Maximum Reverse Current @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	I_R	5 250	10 500		μA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	25	50		ns
Typical Thermal Resistance	$R_{\theta JC}$	3.0	2.0		$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to + 175			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 175			$^\circ\text{C}$

Note 1: Pulse leat: $t_p = 300\mu\text{s}$, Duty Cycle < 1%

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

RATINGS AND CHARACTERISTIC CURVES (MUR1620CT THRU MUR1660CT)

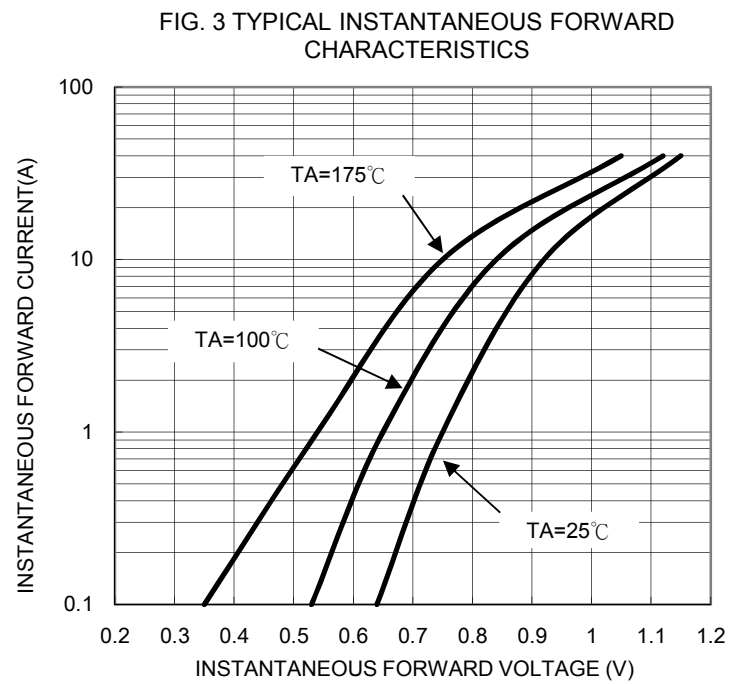
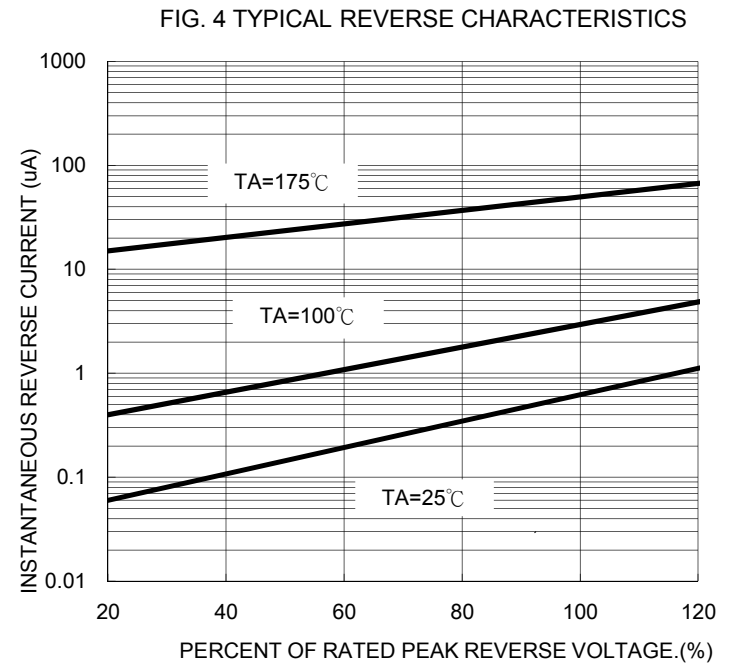
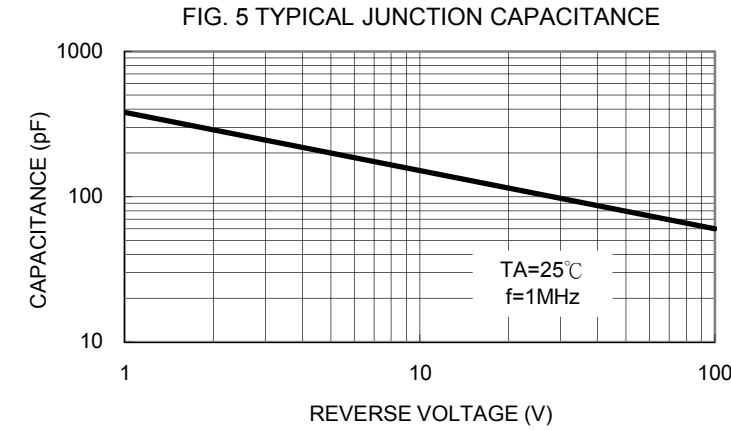
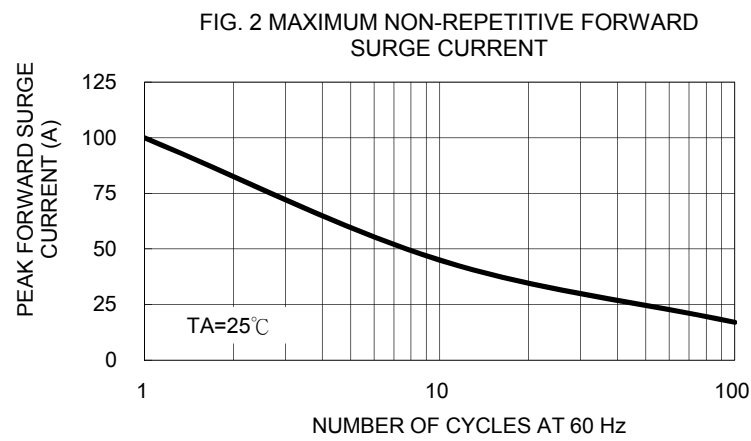
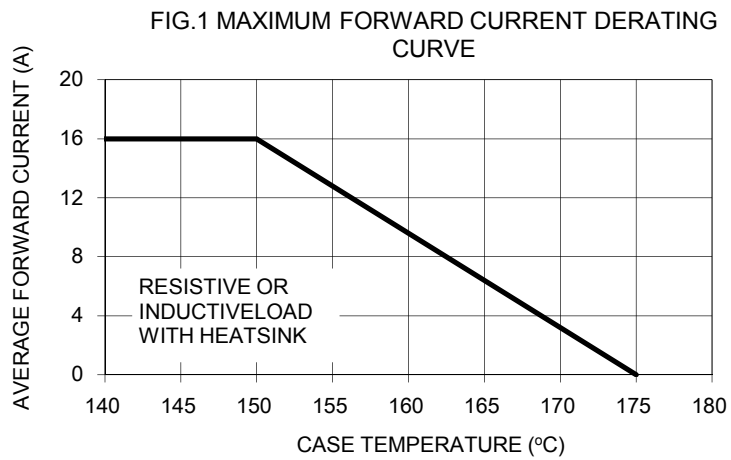
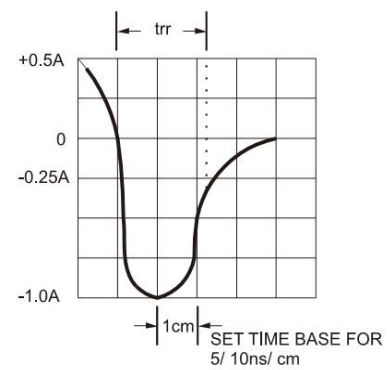
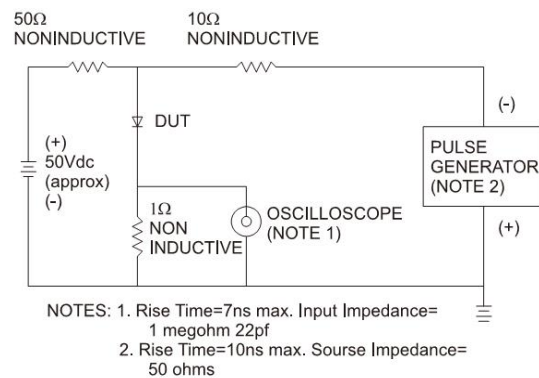


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

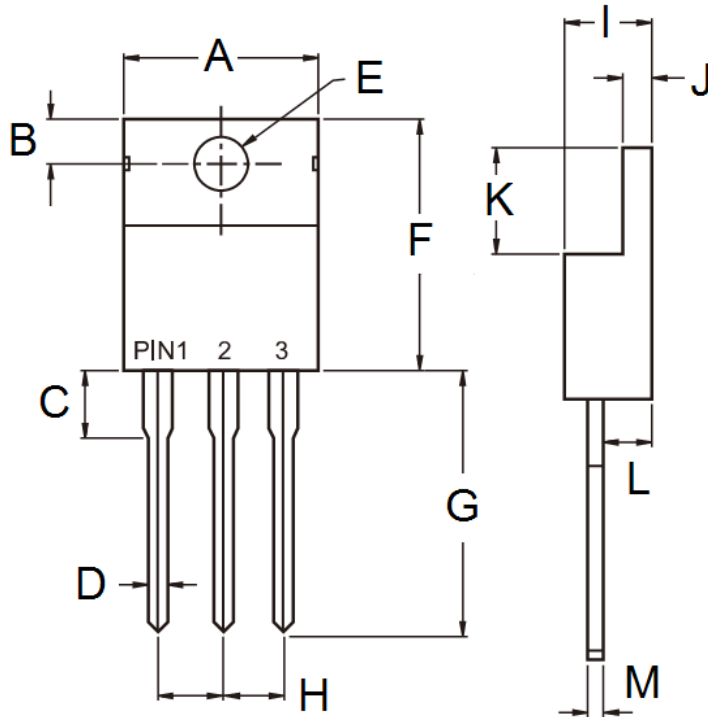


Ordering information

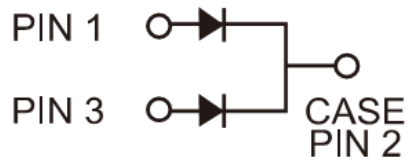
Part No.	Package	BULK Packing	Packing code	Packing code (Green)
MUR16x0CT	TO-220AB	50 / TUBE	C0	C0G

Note: "x" is Device Code from "2" thru "6".

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	2.62	3.44	0.103	0.135
C	2.80	4.20	0.110	0.165
D	0.68	0.94	0.027	0.037
E	3.54	4.00	0.139	0.157
F	14.60	16.00	0.575	0.630
G	13.19	14.79	0.519	0.582
H	2.41	2.67	0.095	0.105
I	4.42	4.76	0.174	0.187
J	1.14	1.40	0.045	0.055
K	5.84	6.86	0.230	0.270
L	2.20	2.80	0.087	0.110
M	0.35	0.64	0.014	0.025



Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code