

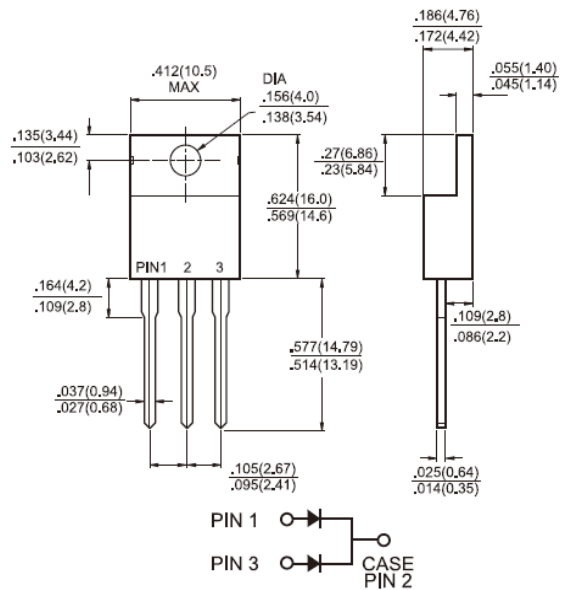


MUR1620CT - MUR1660CT

16.0AMPS. Switchmode Power Rectifiers
TO-220AB

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
- ✦ Shipped 50 units per plastic tube
- ✦ Weight: 1.9 grams

Dimensions in inches and (millimeters)



Marking Diagram

- MUR16XXCT = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

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	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) @ $I_F=8$ A, $T_A=25^\circ\text{C}$ @ $I_F=8$ 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	-65 to + 175			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to + 175			$^\circ\text{C}$

Note 1: Pulse test: $t_p = 300\mu\text{s}$, 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.1 MAXIMUM FORWARD CURRENT DERATING CURVE

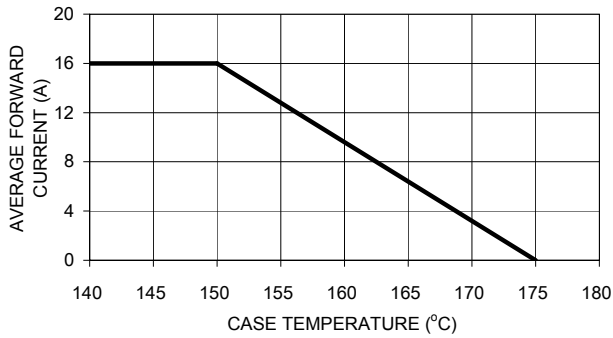


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

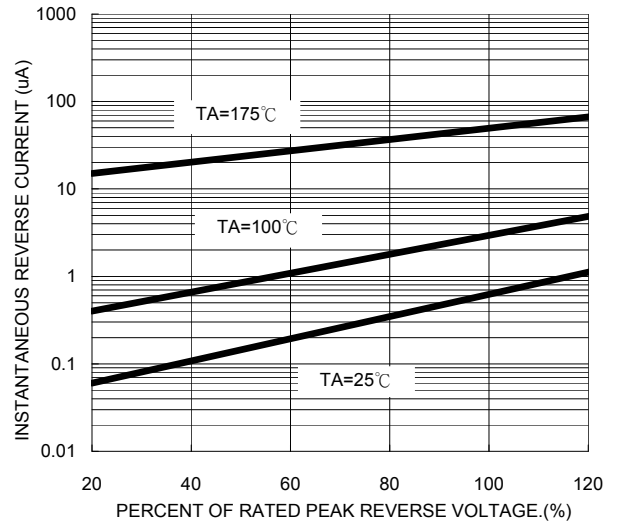


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

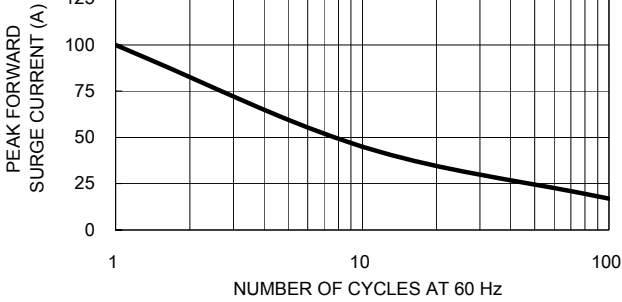


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

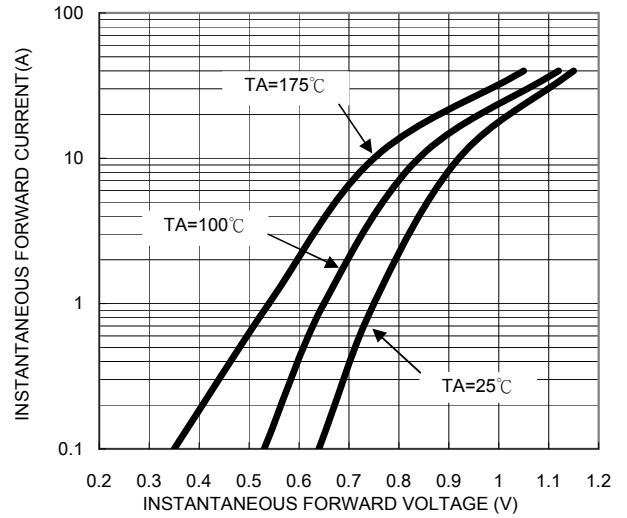


FIG. 5 TYPICAL JUNCTION CAPACITANCE

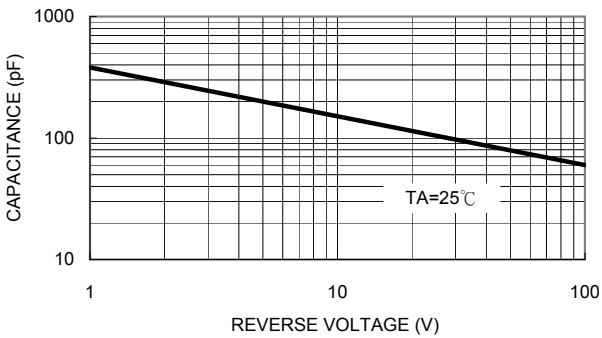


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

