



**RoHS**  
COMPLIANCE



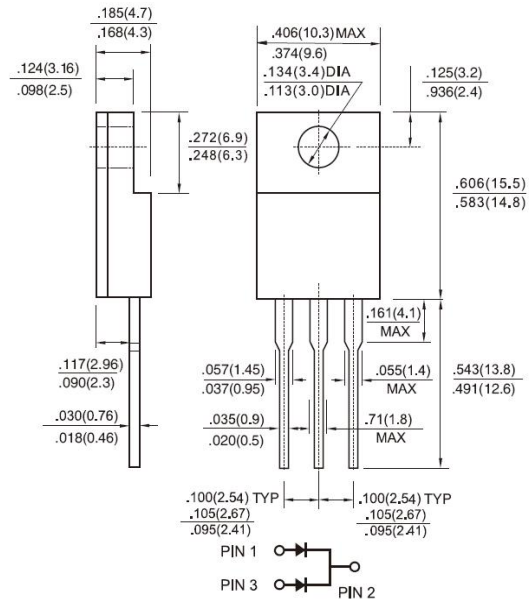
# MURF1620CT - MURF1660CT

## 16.0AMPS. Isolated Switchmode Power Rectifiers

### ITO-220AB

### Features

- ✦ UL Recognized File # E-326243
- ✦ Ultrafast 35 and 60 Nanosecond Recovery times
- ✦ 175°C operating Junction Temperature
- ✦ Popular ITO-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

MURF16XXCT = 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	MURF 1620CT	MURF 1640CT	MURF 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	$I_{F(AV)}$	16.0			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) @ $I_F=8.0A$ , $T_A=25^\circ C$ @ $I_F=8.0A$ , $T_A=150^\circ C$	$V_F$	0.975 0.895	1.3 1.1	1.5 1.2	V
Maximum Reverse Current @ $T_A=25^\circ C$ @ $T_A=125^\circ C$	$I_R$	5 250	10 500		$\mu A$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	25	50		ns
Typical Thermal Resistance	$R_{\theta JC}$	3.0	2.0		$^\circ C/W$
Operating Temperature Range	$T_J$	-65 to + 175			$^\circ C$
Storage Temperature Range	$T_{STG}$	-65 to + 175			$^\circ C$

Note 1: Pulse lest:  $t_p = 300\mu S$ , Duty Cycle<1%

Note 2: Reverse Recovery Test Condition: $I_F=0.5A$ ,  $I_R=1.0A$ ,  $IRR=0.25A$

## RATINGS AND CHARACTERISTIC CURVES (MURF1620CT THRU MURF1660CT)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

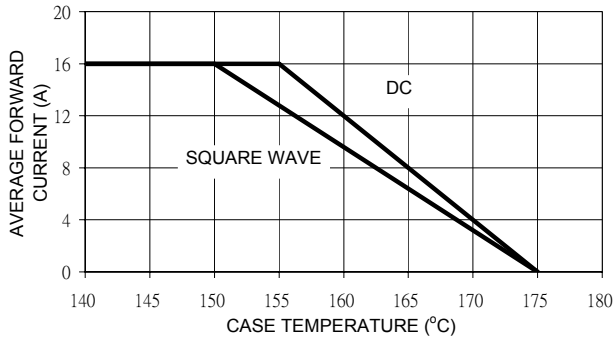


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

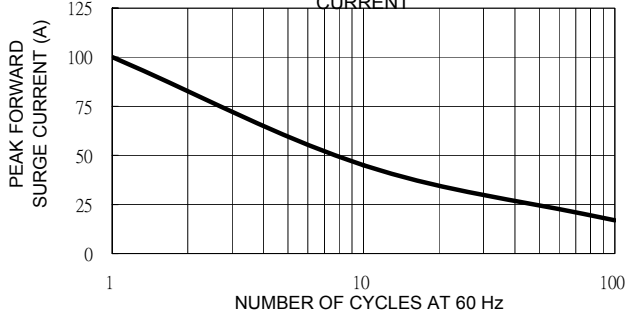


FIG. 5 TYPICAL JUNCTION CAPACITANCE

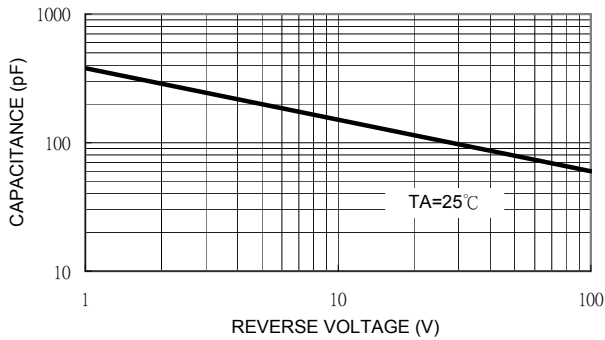


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

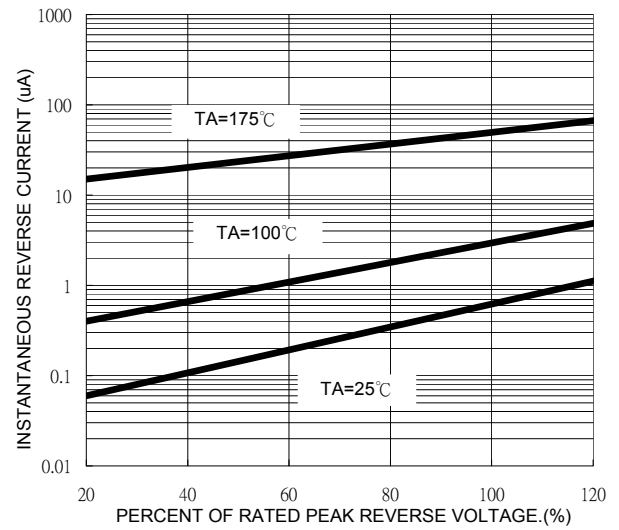


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

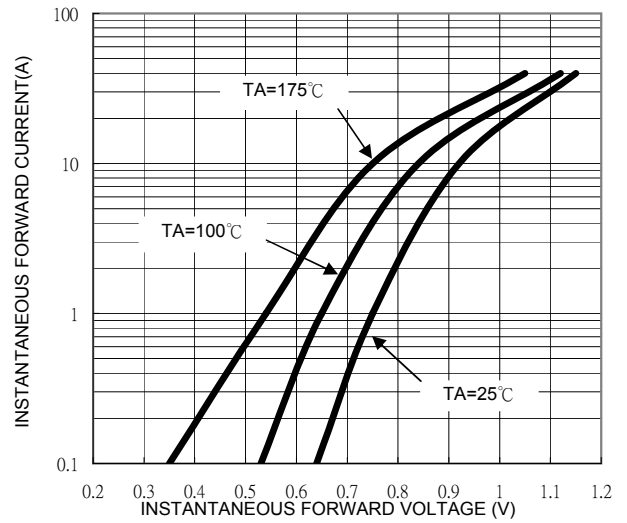


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

