

# MUR1620CT

## GLASS PASSIVATED HIGH EFFICIENCY RECTIFIER

TO-220

Reverse Voltage – 50 to 1000 Volts

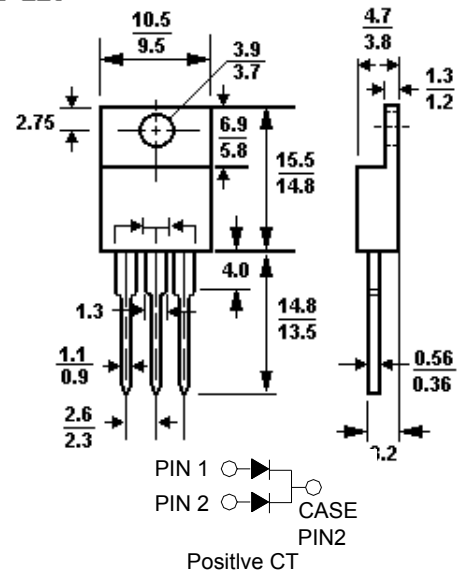
Forward Current – 16.0 Amperes

### Features

- Low forward voltage, High current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- High surge capacity
- Low power loss, high efficiency
- Ultra fast recovery times, high voltage

### Mechanical Data

- **Case:** Molded plastic, TO-220
- **Terminals:** leads solderable per MIL-STD-202, method 208 guaranteed
- **Polarity:** As marked
- **Mounting Position:** Any



### Absolute Maximum Ratings and Characteristics

### Dimensions in mm

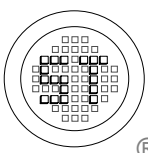
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	Value	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	200	Volts
Maximum RMS voltage	$V_{RMS}$	140	Volts
Maximum DC blocking voltage	$V_{DC}$	200	Volts
Maximum average forward Rectified current at $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	16.0	Amps
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	125	Amps
Maximum forward voltage at 8.0A and $T_A = 25^\circ\text{C}$	$V_F$	1.0	Volts
Typical junction Capacitance (Note1)	$C_J$	80	pF
Maximum reverse recovery time (Note 2)	$T_{RR}$	50	nS
Typical thermal resistance (Note3)	$R_{\theta JC}$	3.0	°C/W
Maximum reverse current at rated DC blocking voltage	@ $T_A = 25^\circ\text{C}$	10	µAmps
	@ $T_C = 125^\circ\text{C}$	500	µAmps
Operating and storage temperature range	$T_J, T_s$	-55 to +150	°C

Notes :1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

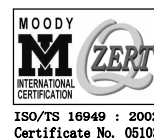
2. Reverse recovery test conditions:  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $I_{RR} = 0.25A$

3. Thermal resistance from junction to case per leg mounted on heatsink.



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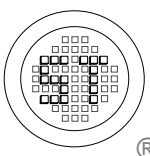
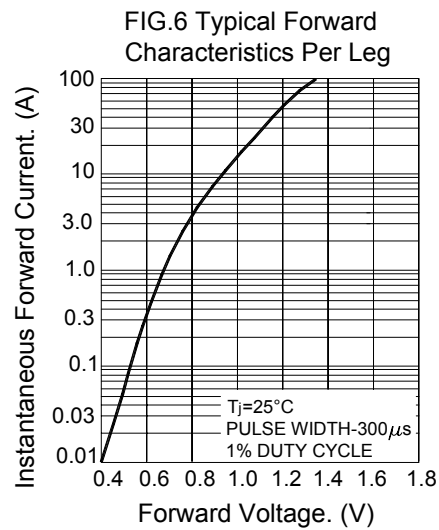
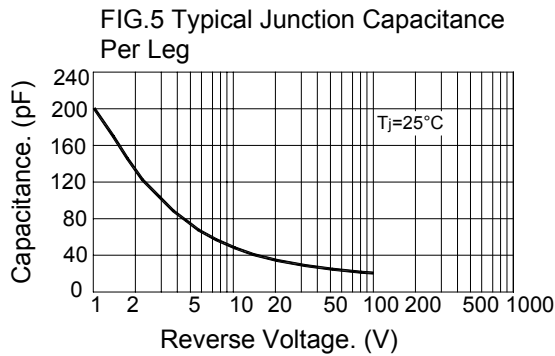
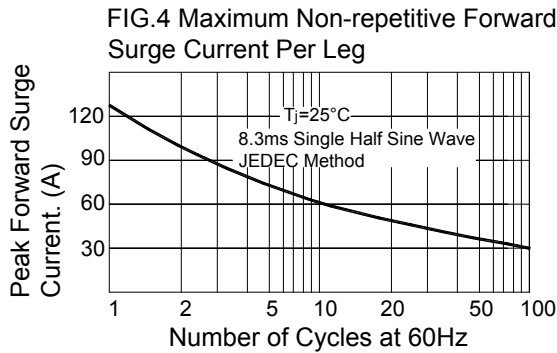
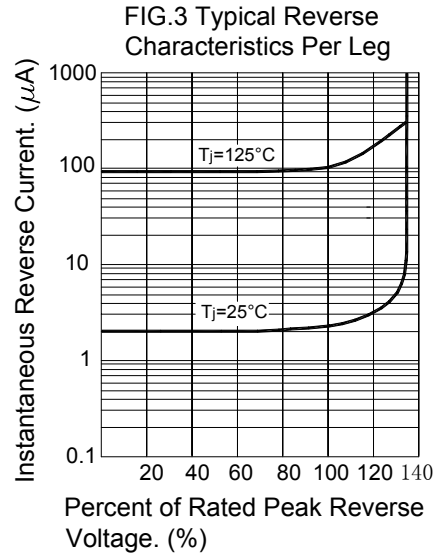
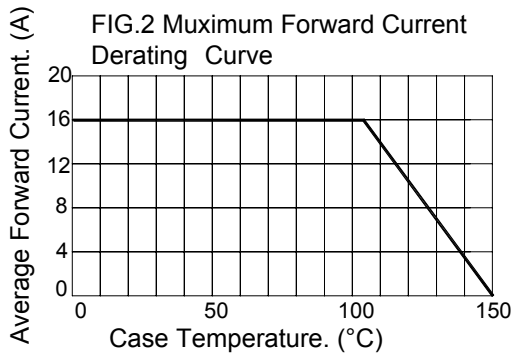
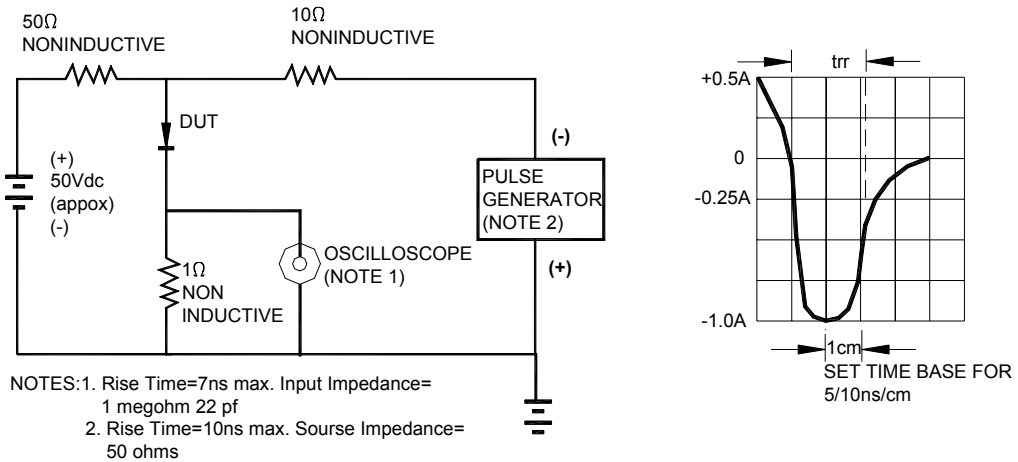
ISO/TS 16949 : 2002 Certificate No. 05103

ISO 14001 Certificate No. 7116

ISO 9001 : 2000 Certificate No. 5557-1999-0007-001

Dated : 23/06/2003

FIG.1 Reverse Recovery Time Characteristic and Test Circuit Diagram



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