

MUR16400CT

Glass Passivated Super Fast Rectifiers

400Volts

CURRENT

16 Amperes

Features

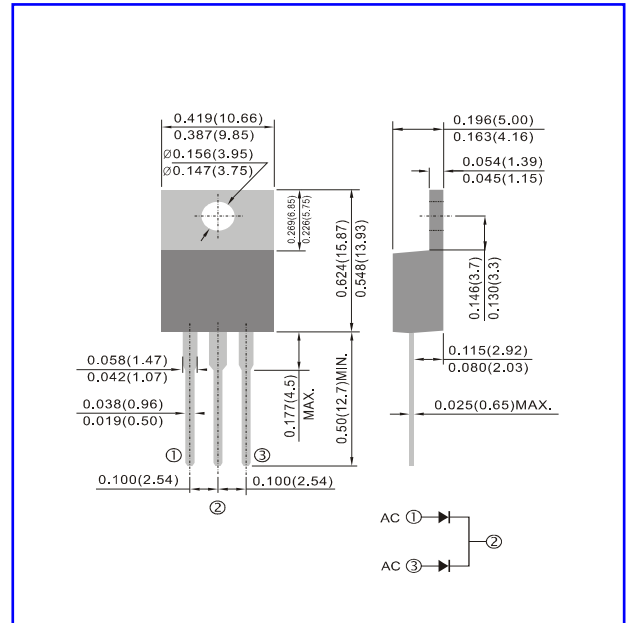
- ✦ High efficiency, low VF
- ✦ High current capability
- ✦ High reliability
- ✦ High surge current capability
- ✦ Low power loss.
- ✦ For use in low voltage, high frequency inventor, free wheeling, and polarity protection application

Mechanical Data

- ✦ Case: TO-220AB Molded plastic
- ✦ Epoxy: UL 94V-0 rate flame retardant
- ✦ Terminals: Pure tin plated, lead free. solderable per MIL-STD-202, Method 208 guaranteed
- ✦ Polarity: As marked
- ✦ High temperature soldering guaranteed: 260°C/10 seconds .16", (4.06mm) from case.
- ✦ Weight: 2.24 grams

TO-220AB

Unit : inch(mm)



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	MUR16400CT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_C = 100^\circ C$	$I_{(AV)}$	16	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	1.3	V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	I_R	1.0 400	μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35	nS
Typical Junction Capacitance (Note 2)	C_j	60	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	1.5	$^\circ C/W$
Operating Temperature Range	T_J	-65 to +150	$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150	$^\circ C$

- Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
 3. Mounted on Heatsink Size of 2" x 3" x 0.25" Al-plate.

MUR16400CT

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

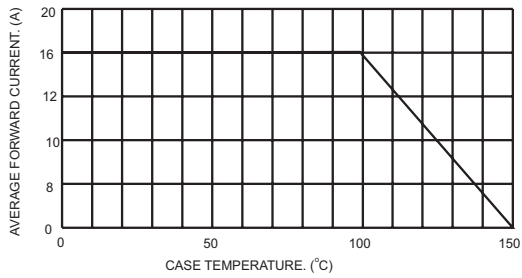


FIG.2- TYPICAL REVERSE CHARACTERISTICS

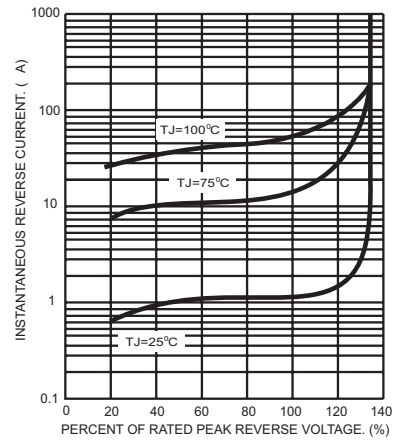


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

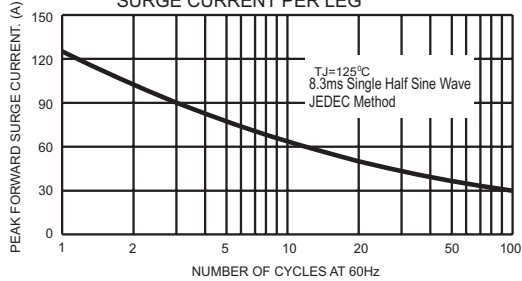


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER LEG

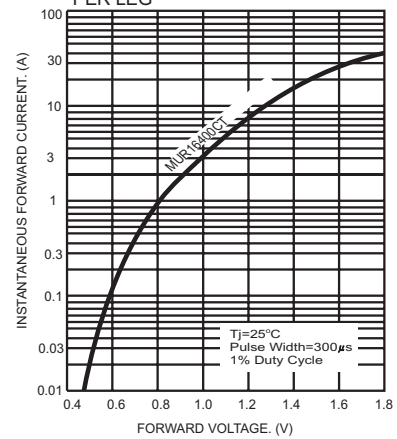


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

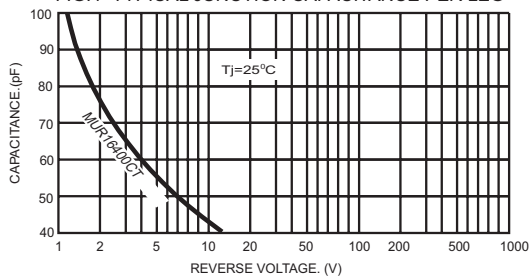
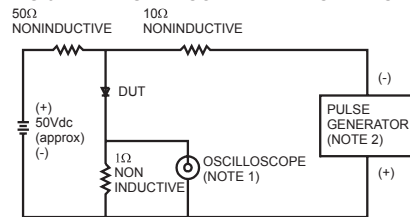


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



- NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf
2. Rise Time=10ns max. Source Impedance=50 ohms

