

# MUR605CT~MUR660CT

## SUPERFAST RECOVERY RECTIFIER

**VOLTAGE** 50 to 600 Volt **CURRENT** 6.0 Ampere

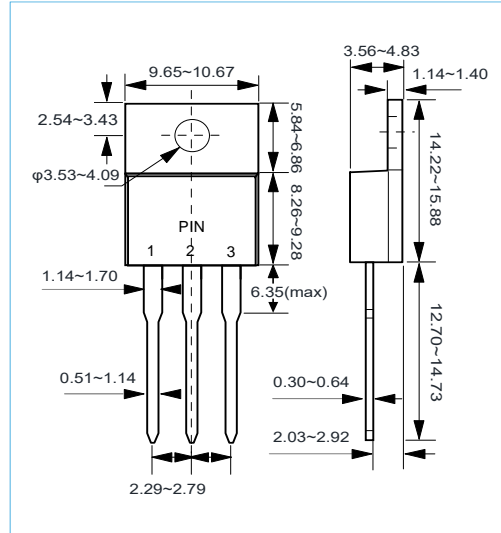
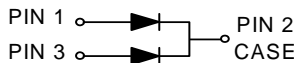
**TO-220AB** Unit:mm

### FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Low leakage.
- High surge capability.
- Lead free in compliance with EU RoHS

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	MUR605CT	MUR610CT	MUR620CT	MUR640CT	MUR660CT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Current at See Fig 1	$I_{F(AV)}$	6					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	60					A
Maximum Forward Voltage at 3 A (Note 1)	$V_F$	0.975		1.3		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=100^{\circ}C$	$I_R$	5 50					$\mu A$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	35			60	75	ns
Typical Junction Capacitance (Note 2)	$C_J$	60					pF
Typical thermal Resistance (Note 3)	$R_{\theta JC}$	3					$^{\circ}C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150					$^{\circ}C$

#### NOTES:

1. Pulse Test with PW=300 $\mu$ sec, 2% Duty Cycle.
2. Reverse Recovery Tset Conditions :  $I_F=0.5A, I_R=1A, I_{rr}=0.25A$
3. Mounted on P.C. Board with 14mm<sup>2</sup> (0.013mm thick) copper pad areas.

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## RATING AND CHARACTERISTIC CURVES

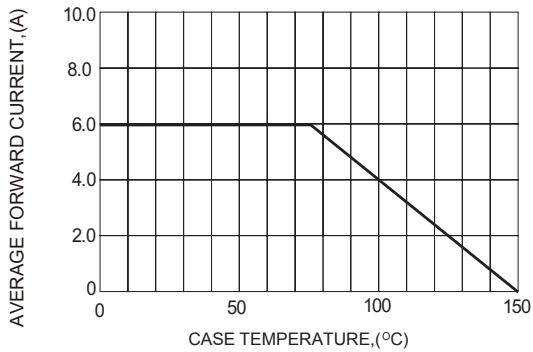


Fig. 1 Forward Current Derating Curve

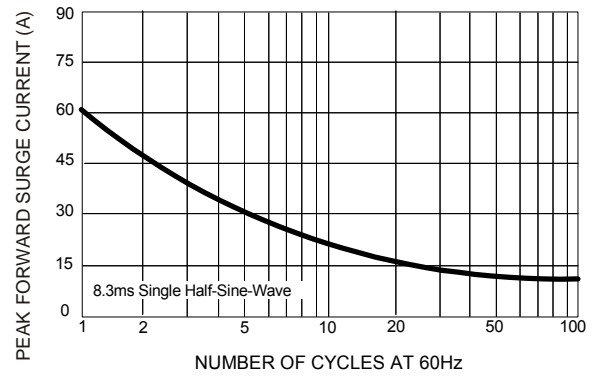


Fig. 2 Surge Current Derating Curve

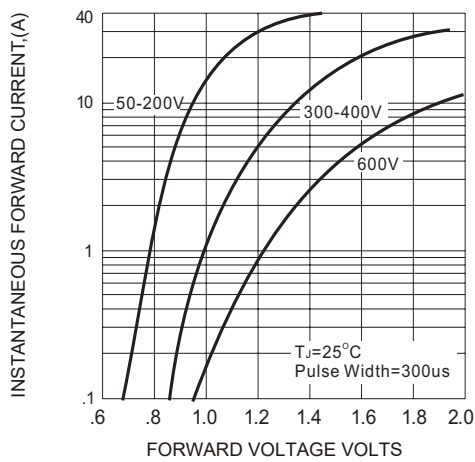


Fig. 3 Typical Forward Characteristics

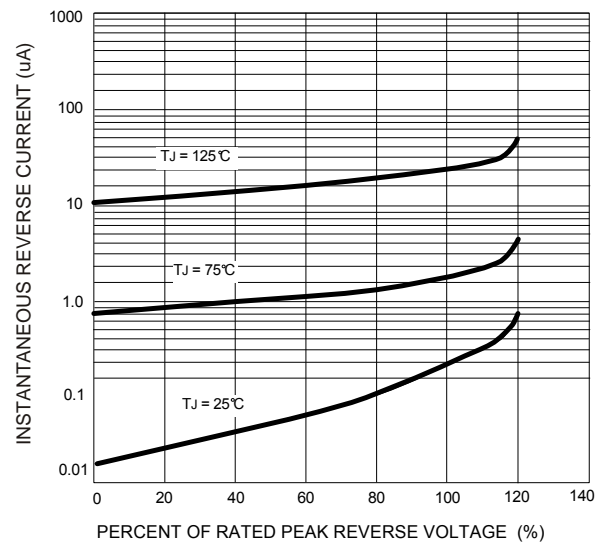
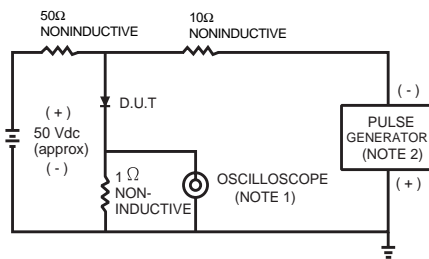


Fig. 4 Typical Reverse Characteristics



NOTES:  
 3. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.  
 4. Rise time = 10 ns max; Source impedance = 50 ohms.

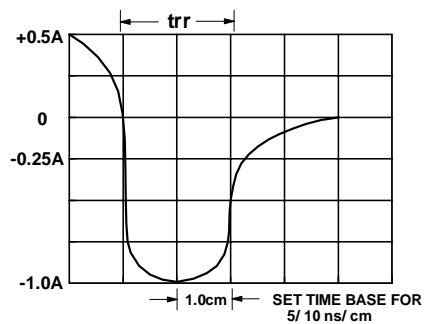


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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### ORDER INFORMATION

- Packing information

Part Number	Case	DELIVERY MODE	QUANTITY
MUR605CT~MUR660CT	TO-220AB	Tube	1000/BOX