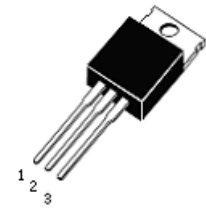


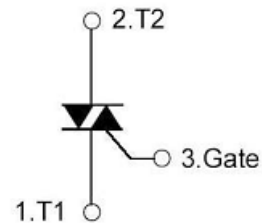
# 16Amp Triac FTC16A60 Non- Insulated Pack

## Features

- \* Repetitive Peak Off-State Voltage: 600V
- \* R.M.S On-state Current( $I_{T(RMS)}=16A$ )
- \* High Commutation  $dv/dt$



TO-220



## General Description

The Triac FTC16A60 is suitable for AC switching application, phase control application such as heater control, motor control, lighting control, and static switching relay.

## Absolute Maximum Ratings ( $T_a=25^{\circ}C$ )

$T_{stg}$ —Storage Temperature	.....	-40~125°C
$T_j$ —Operating Junction Temperature	.....	-40~125°C
$P_{GM}$ —Peak Gate Power Dissipation	.....	5W
$V_{DRM}$ —Repetitive Peak Off-State Voltage	.....	600V
$I_T$ (RMS) —R.M.S On-state Current ( $T_a=98^{\circ}C$ )	.....	16A
$V_{GM}$ —Peak Gate Voltage	.....	10V
$I_{GM}$ —Peak Gate Current	.....	2.0A
$I_{TSM}$ —Surge On-State Current (One Cycle, 50/60Hz,Peak,Non-Repetitive)	.....	155/170A

## Electrical Characteristics ( $T_a=25^{\circ}C$ )

Symbol	Items	Min	Typ.	Max.	Unit	Conditions
$I_{DRM}$	Repetitive Peak Off-State Current			2.0	mA	$V_D=V_{DRM}$ , Single Phase, Half Wave, $T_j=125^{\circ}C$
$V_{TM}$	Peak On-State Voltage			1.4	V	$I_T=25A$ , Inst. Measurement
$I_{+GT1}$	Gate Trigger Current ( I )			30	mA	$V_D=6V$ , $R_L=10\ ohm$
$I_{-GT1}$	Gate Trigger Current ( II )			30	mA	$V_D=6V$ , $R_L=10\ ohm$
$I_{-GT3}$	Gate Trigger Current ( III )			30	mA	$V_D=6V$ , $R_L=10\ ohm$
$V_{+GT1}$	Gate Trigger Voltage ( I )			1.5	V	$V_D=6V$ , $R_L=10\ ohm$
$V_{-GT1}$	Gate Trigger Voltage ( II )			1.5	V	$V_D=6V$ , $R_L=10\ ohm$
$V_{-GT3}$	Gate Trigger Voltage ( III )			1.5	V	$V_D=6V$ , $R_L=10\ ohm$
$V_{GD}$	Non-Trigger Gate Voltage	0.2			V	$T_j=125^{\circ}C$ , $V_D=1/2V_{DRM}$
$(dv/dt)_c$	Critical Rate of Rise of Off-State Voltage at Commutation	10			V/ $\mu$ S	$T_j=125^{\circ}C$ , $V_D=2/3V_{DRM}$ $(di/dt)_c=-8A/ms$
$I_H$	Holding Current		25		mA	
$R_{th(j-c)}$	Thermal Resistance			1.4	$^{\circ}C/W$	Junction to Case



# 16Amp Triac FTC16A60 Non- Insulated Pack

## Performance Curves

Fig 1. Gate Characteristics

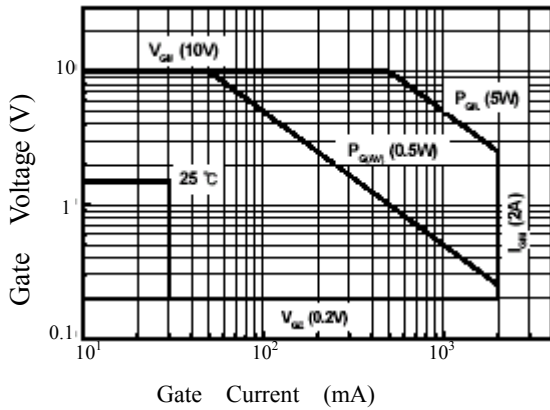


Fig 2. On-State Voltage

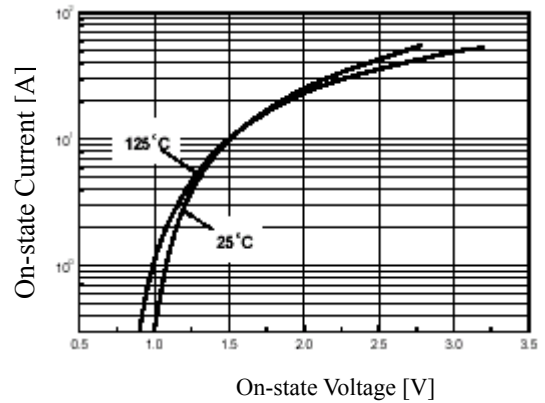


Fig 3. Gate Trigger Voltage vs. Junction Temperature

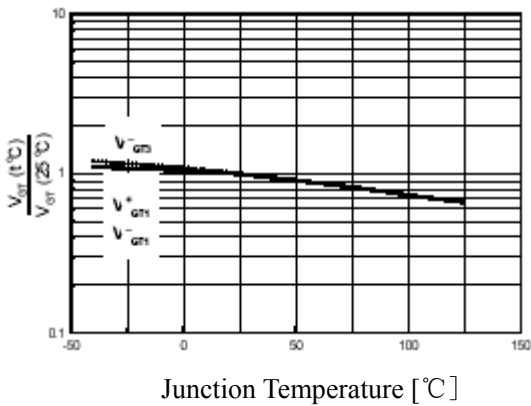


Fig 4. On State Current vs. Maximum

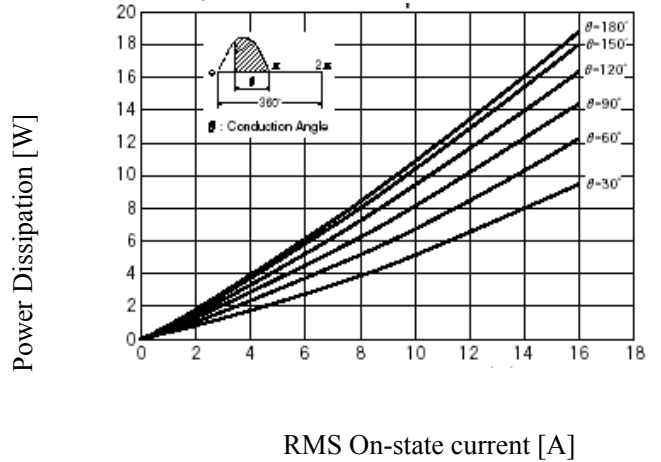


Fig 5. On State Current vs. Allowable Case Temperature

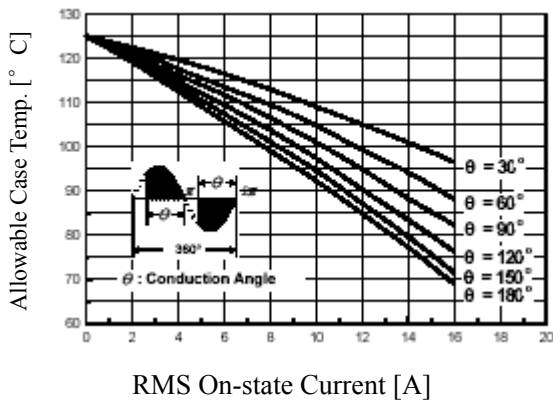
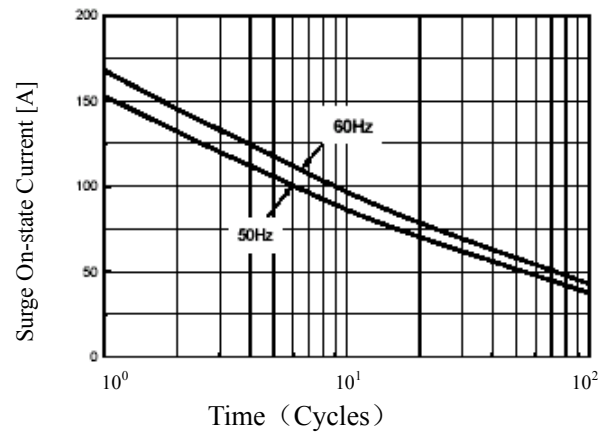


Fig 6. Surge On-State Current Rating (Non-Repetitive)



# 16Amp Triac FTC16A60 Non- Insulated Pack

Fig 7. Gate Trigger Current vs. Junction Temperature

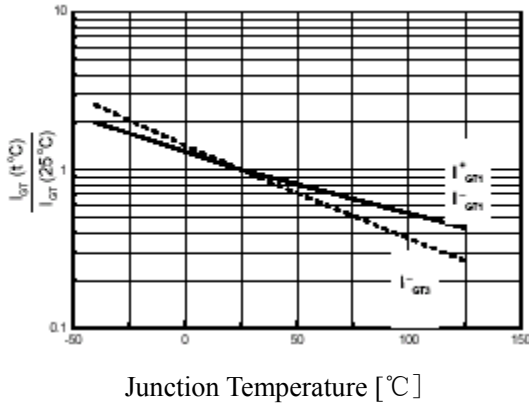


Fig 8. Transient Thermal Impedance

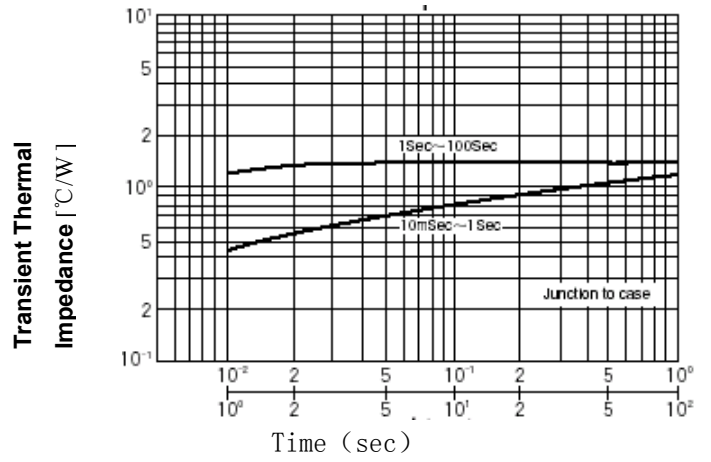
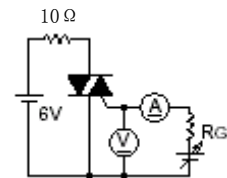
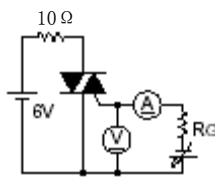


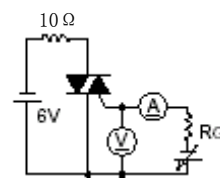
Fig 9. Gate Trigger Characteristics Test Circuit



Test Procedure I



Test Procedure II



Test Procedure III