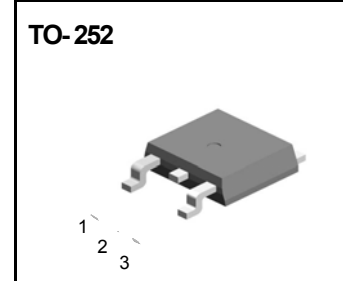
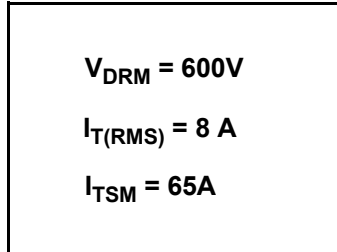
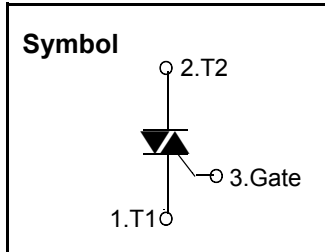


## Standard Triac



### Features

- ◆ Repetitive Peak Off-State Voltage : 600V
- ◆ R.M.S On-State Current (  $I_{T(RMS)} = 8 A$  )
- ◆ High Commutation dv/dt

### General Description

This device is fully isolated package suitable for AC switching application, phase control application such as fan speed and temperature modulation control, lighting control and static switching relay.

### Absolute Maximum Ratings ( $T_j = 25^\circ C$ unless otherwise specified )

Symbol	Parameter	Condition	Ratings	Units
$V_{DRM}$	Repetitive Peak Off-State Voltage	Since wave, 50 to 60Hz	600	V
$I_{T(RMS)}$	R.M.S On-State Current	$T_j = 125^\circ C$ , Full Sine wave	8.0	A
$I_{TSM}$	Surge On-State Current	One Cycle, 50Hz/60Hz, Peak, Non-Repetitive	65	A
PG(AV)	Average Gate Power Dissipation	$T_j = 125^\circ C$	1	W
IGM	Peak Gate Current	$T_j = 125^\circ C$	2	A
$T_j$	Operating Junction Temperature		- 40 ~ 125	$^\circ C$
$T_{STG}$	Storage Temperature		- 40 ~ 150	$^\circ C$



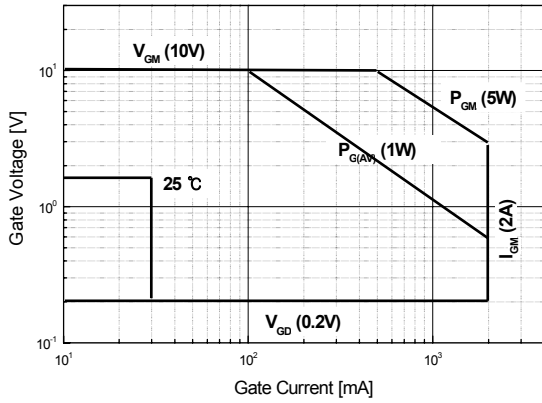
# TD8A60

## Electrical Characteristics

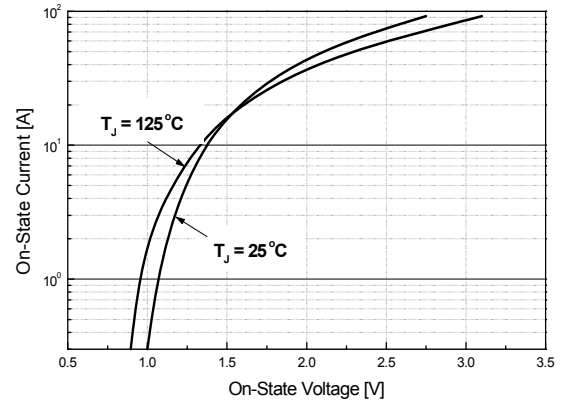
Symbol	Items		Conditions	Ratings			Unit
				Min.	Typ.	Max.	
$I_{DRM}$	Repetitive Peak Off-State Current		$V_D = V_{DRM}$ , Single Phase, Half Wave $T_j = 125^\circ\text{C}$	—	—	1	mA
$V_{TM}$	Peak On-State Voltage		$I_{TM} = 8\text{ A}$ , $T_P=380\mu\text{s}$	---	—	1.5	V
$I_{GT1}^+$	I	Gate Trigger Current	$V_D = 12\text{ V}$ , $R_L=100\ \Omega$	—	—	30	mA
$I_{GT1}^-$	II			—	—	30	
$I_{GT3}^-$	III			—	—	30	
$V_{GT1}^+$	I	Gate Trigger Voltage	$V_D = 12\text{ V}$ , $R_L=100\ \Omega$	—	—	1.5	V
$V_{GT1}$	II			—	—	1.5	
$V_{GT3}$	III			—	—	1.5	
$V_{GD}$	Non-Trigger Gate Voltage		$T_j = 125^\circ\text{C}$ , $V_D = V_{DRM}$ , $R_L=3.3\text{K}\ \Omega$	0.2	---	—	V
dv/dt	Critical Rate of Rise Off-State Voltage		$T_j = 125^\circ\text{C}$ , $V_D=2/3\ V_{DRM}$	200	---	---	V/ $\mu\text{s}$
$I_H$	Holding Current		$V_D=12\text{V}$ , $I_{GT}=50\text{mA}$	--	--	50	mA



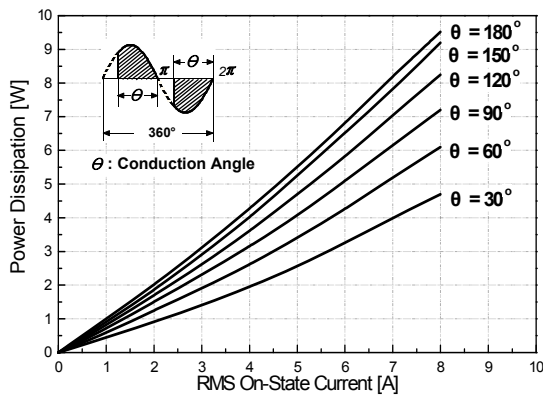
**Fig 1. Gate Characteristics**



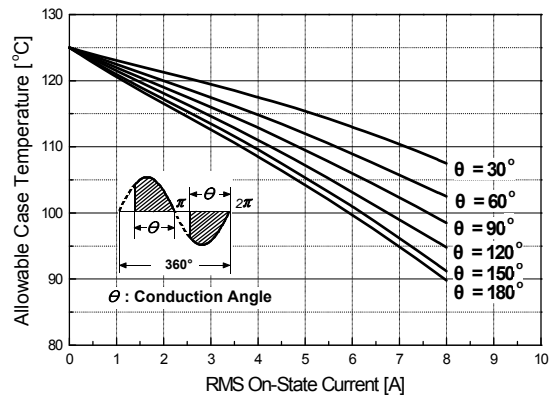
**Fig 2. On-State Voltage**



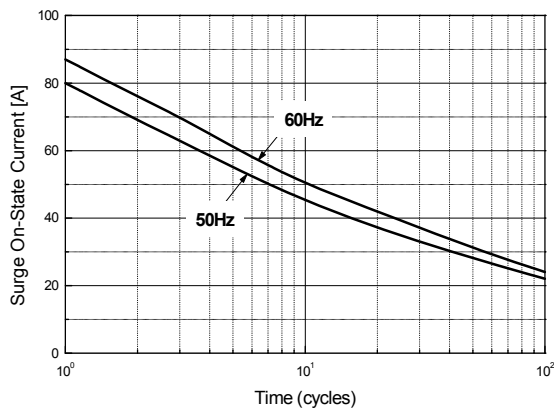
**Fig 3. On State Current vs. Maximum Power Dissipation**



**Fig 4. On State Current vs. Allowable Case Temperature**



**Fig 5. Surge On-State Current Rating ( Non-Repetitive )**



**Fig 6. Gate Trigger Voltage vs. Junction Temperature**

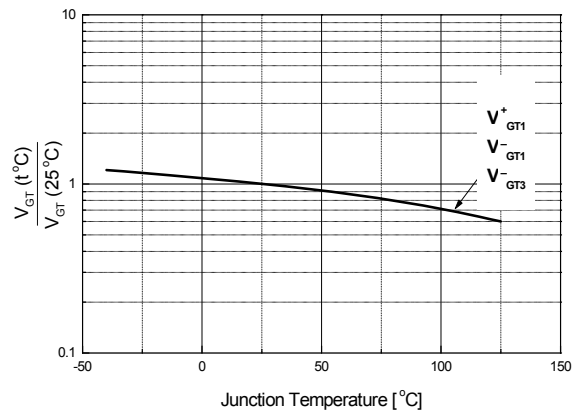




Fig 7. Gate Trigger Current vs. Junction Temperature

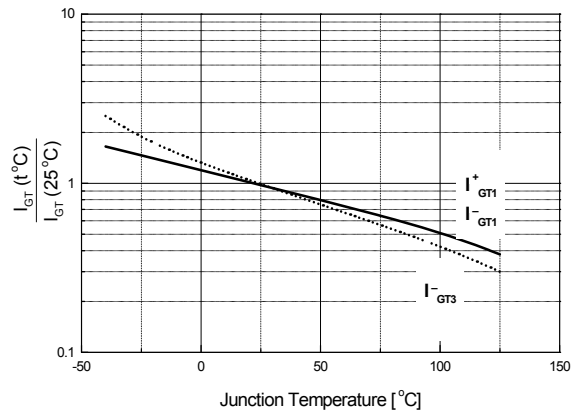
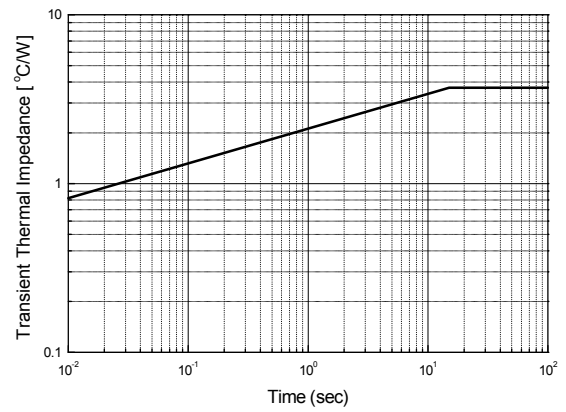


Fig 8. Transient Thermal Impedance





## TO-252 Package Dimension

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.20	2.40	0.087	0.094
B	1.30	1.50	0.051	0.059
b	0.55	0.65	0.022	0.026
b1	0.46	0.56	0.018	0.022
C	0.46	0.56	0.018	0.022
D	6.40	6.60	0.252	0.260
D1	5.20	5.40	0.205	0.212
E	5.40	5.60	0.212	0.220
e1	2.25	2.35	0.089	0.093
e2	4.50	4.70	0.177	0.185
L1	9.25	9.75	0.346	0.384
L2	0.95	1.45	0.037	0.057

