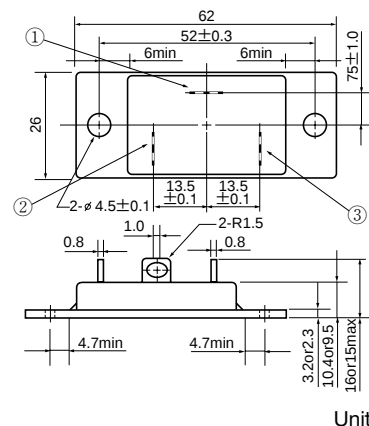
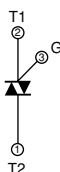


TG70AA40/60

TG70AA40/60 are isolated mould triac suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light control and heater control.

- IT(AV) 70A
- High surge capability 600A
- Isolated Mounting (AC650V)
- Tab Terminals



■ Maximum Ratings

(T_j=25°C unless otherwise specified)

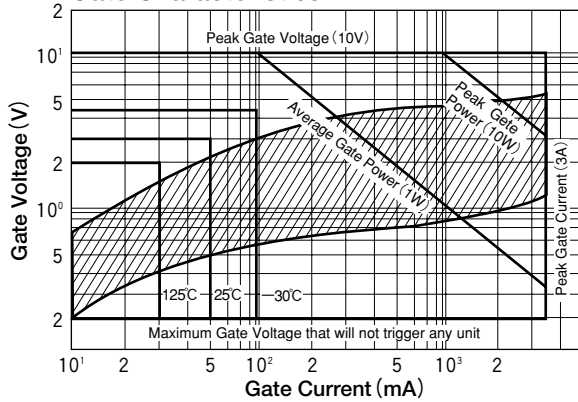
Symbol	Item	Ratings		Unit
		TG70AA40	TG70AA60	
V _{DRM}	Repetitive Peak Off-State Voltage	400	600	V
V _{DSM}	Non-Repetitive Peak Off-State Voltage	450	650	V

Symbol	Item	Conditions	Ratings	Unit
I_T (RMS)	R.M.S. On-State Current	$T_c=58^{\circ}\text{C}$	70	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, peak, non-repetitive	1080/1200	A
I^2t	I^2t		6000	A^2S
P_{GM}	Peak Gate Power Dissipation		10	W
$P_{G(AV)}$	Average Gate Power Dissipation		1	W
I_{GM}	Peak Gate Current		3	A
V_{GM}	Peak Gate Voltage		10	V
di/dt	Critical Rate of Rise of On-State Current	$I_G=100\text{mA}$, $T_j=25^{\circ}\text{C}$, $V_D=\frac{1}{2}V_{DRM}$, $dI_G/dt=1\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
T_j	Operating Junction Temperature		-40 to $+125$	$^{\circ}\text{C}$
T_{stg}	Storage Temperature		-40 to $+125$	$^{\circ}\text{C}$
V_{iso}	Isolation Breakdown Voltage (R.M.S.)	A.C.1 minute	2500	V
	Mounting Torque (Mounting M4)	Recommended Value 1.0-1.4 (10-14)	1.5 (15)	$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$)
	Mass			g

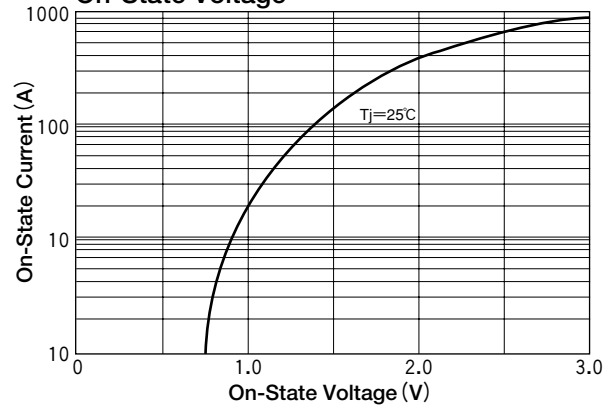
■ Electrical Characteristics

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
IDRM	Reptitive Peak Off-State Current	$V_D = V_{DRM}$, Single phase, half wave, $T_j = 125^\circ\text{C}$			10	mA
V_{TM}	Peak On-State Voltage	On-State Current, 100A, $I_T = 25\text{A}$, Inst. measurement			1.35	V
I_{GT1}^+	1	Gate Trigger Current $T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$			50	mA
I_{GT1}^-	2				50	
I_{GT3}^+	3					
I_{GT3}^-	4				50	
V_{GT1}^+	1	Gate Trigger Voltage $T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$			3	V
V_{GT1}^-	2				3	
V_{GT3}^+	3					
V_{GT3}^-	4				3	
V_{GD}	Non-Trigger Gate Voltage	$T_j = 125^\circ\text{C}$, $V_D = \frac{1}{2}V_{DRM}$	0.2			V
dv/dt	Critical Rate of Rise on-State Voltage,min.	$T_j = 125^\circ\text{C}$, $V_D = \frac{2}{3}V_{DRM}$, Exponential wave.	50			$V/\mu s$
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation	$T_j = 125^\circ\text{C}$, $V_D = \frac{2}{3}V_{DRM}$, $[di/dt] \text{ c} = 8\text{A/ms}$	6			$V/\mu s$
I_H	Holding Current	$T_j = 25^\circ\text{C}$		50	100	mA
$R_{th(j-c)}$	Thermal Impedance	Junction to case			0.83	$^\circ\text{C/W}$

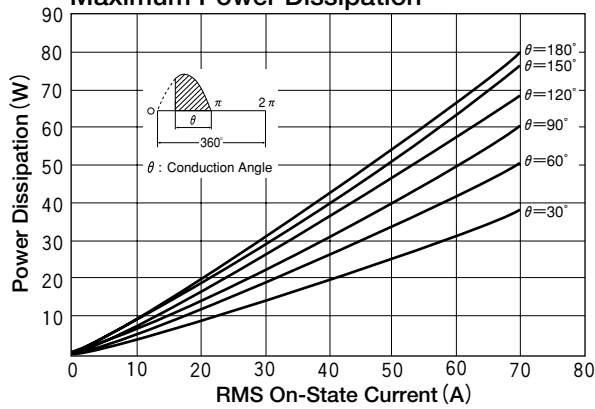
Gate Characteristics



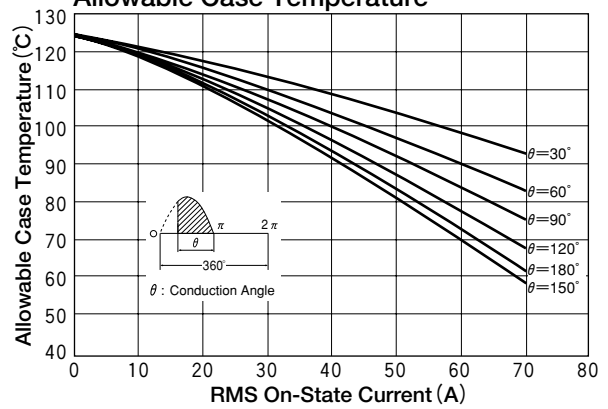
On-State Voltage



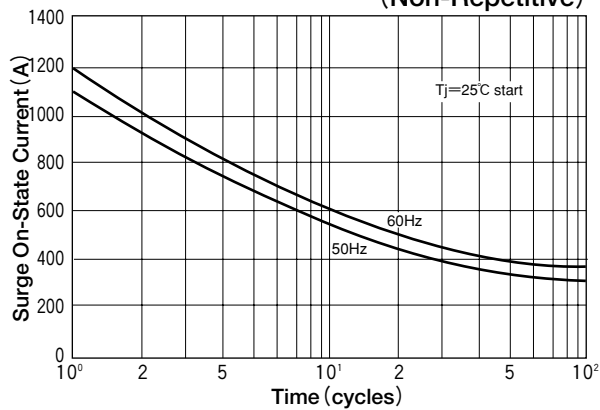
On State Current vs. Maximum Power Dissipation



On State Current vs. Allowable Case Temperature



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance

