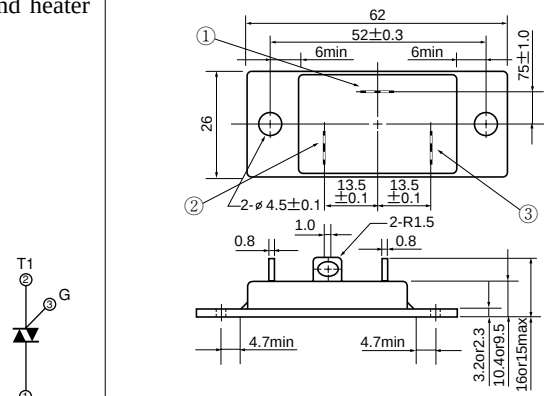
TRIAC（ISOLATED TYPE）

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.

- $I_{T(AV)}$ 70A
- High surge capability 600A
- Isolated Nounting（AC650V）
- Tab Terminals



■Maximum Ratings

（Tj=25℃ 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	Tc=58℃	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=100mA, Tj=25℃, $V_D=\frac{1}{2}V_{DRM}$, dI_G/dt=1A/μs	50	A/μs
Tj	Operating Junction Temperature		−40 to +125	℃
Tstg	Storage Temperature		−40 to +125	℃
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）	N·m (kgf·cm)
	Mass			g

■Electrical Characteristics

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

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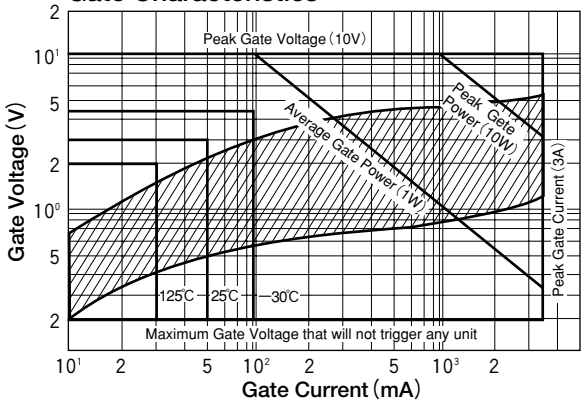
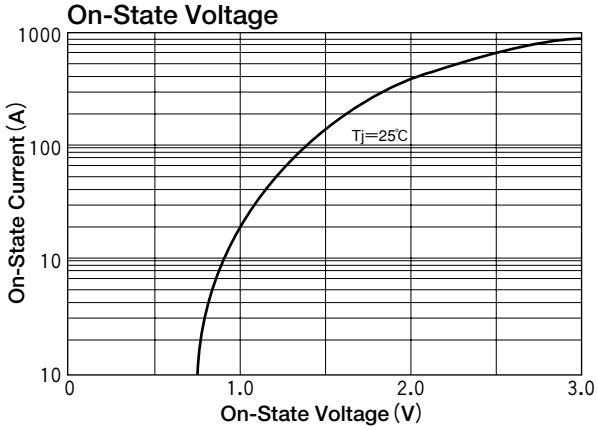
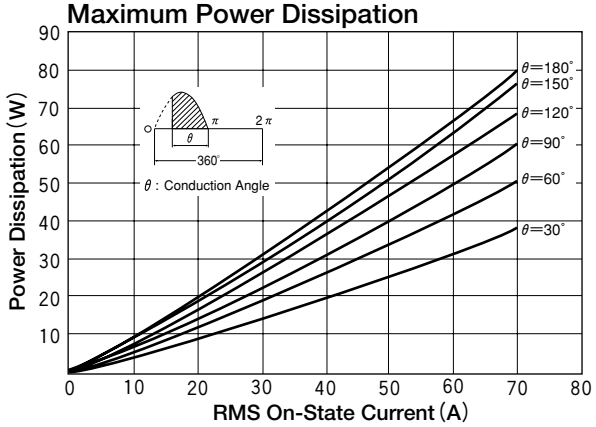
Gate Characteristics



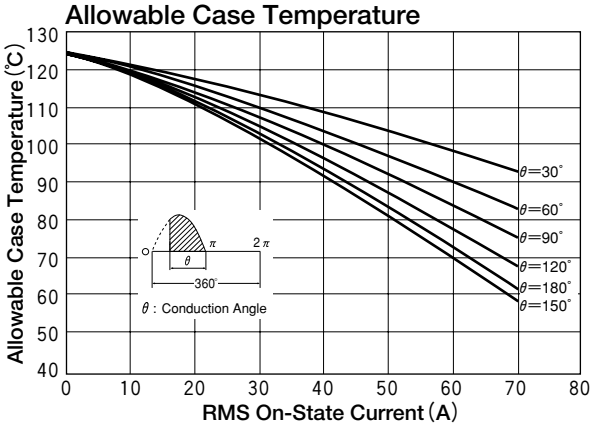
On-State Voltage



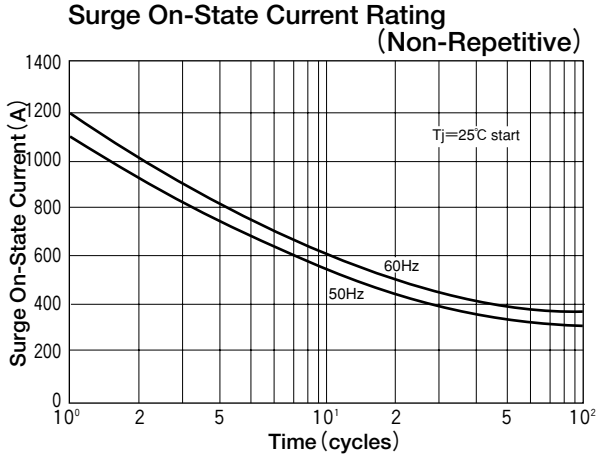
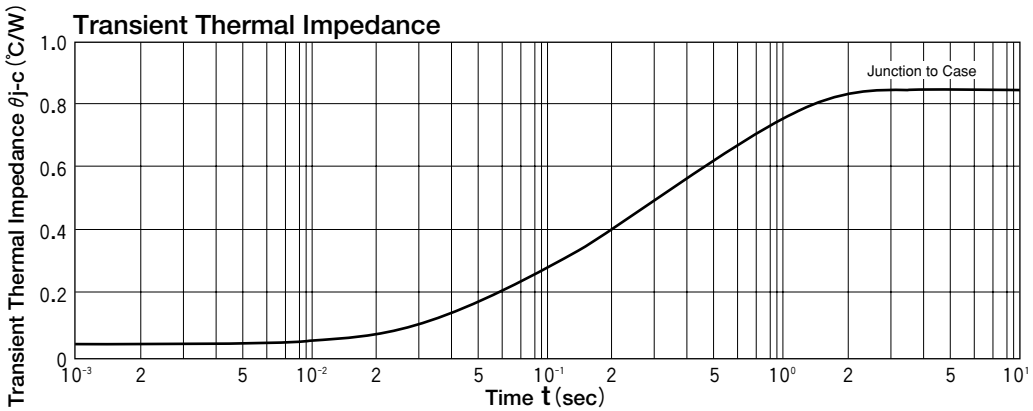
On State Current vs. Maximum Power Dissipation



On State Current vs. Allowable Case Temperature



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance