

**TRIAC (ISOLATED TYPE)**
**Power Modules**

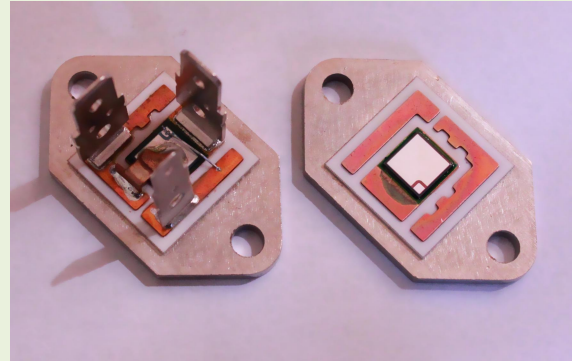
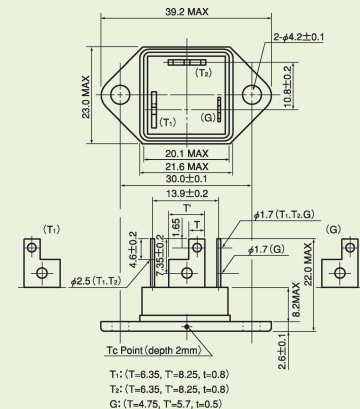
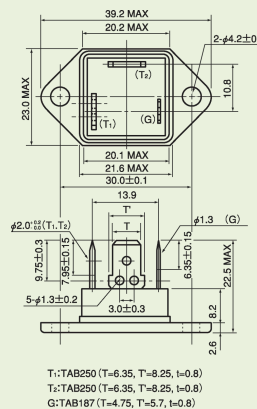
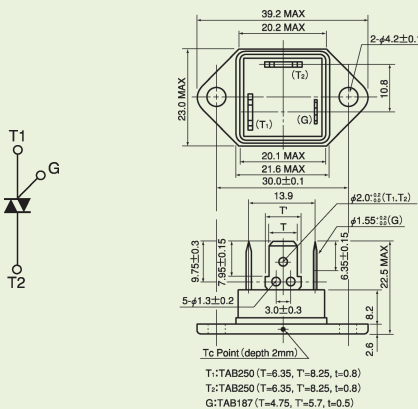
TG40C/E/D are isolated molded triacs suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light control and heater control.

IT AV 40A

High surge capability 400A

Isolated Mounting AC2500V

Tab Terminals


**■ TG-C**
**■ TG-E**
**■ TG-E**

**Maximum Ratings**

Symbol	Item	Conditions	Ratings	Unit
$I_{T\text{RMS}}$	R.M.S. On-State Current	$T_c$	40	A
$I_{TSM}$	Surge On-State Current	One cycle, 50Hz/, peak, non-repetitive	400	A
$I^2t$	$I^2t$	Value for one cycle of surge current	880	$A^2S$
$P_{GM}$	Peak Gate Power Dissipation		10	W
$P_{GAV}$	Average Gate Power Dissipation		1	W
$I_{GM}$	Peak Gate Current		8	A
$V_{GM}$	Peak Gate Voltage		10	V
$di/dt$	Critical Rate of Rise of On-State Current	$I_G=100mA, T_j=25 \quad V_D=1/2V_{DRM} \quad di/dt=1A/\mu S$	50	$A/\mu S$
$T_j$	Operating Junction Temperature		-25~+125	°C
$T_{stg}$	Storage Temperature		-40~+125	°C
$V_{ISO}$	Isolation Breakdown Voltage R.M.S.	A.C. 1 minute	2500	V
	Mounting Torque M4	Recommended Value 1.0 ~1.4 (10~14)	14	kgf.CM

**TRIAC (ISOLATED TYPE)**
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**Maximum Ratings**
**T<sub>j</sub>=25 unless otherwise specified**

Symbol	Item	Ratings				Unit
		TG40C60	TG40C80	TG40C100	TG40C12	V
V <sub>DRM</sub>	Repetitive Peak Off-State Voltage	600	800	1000	1200	V

**Electrical Characteristics**

Symbol	Item	Conditions	Ratings	Unit
I <sub>DRM</sub>	Reptitive Peak Off-State Current, max	VD=VDRM, Single phase, half wave, T <sub>j</sub> =125°C	5	mA
V <sub>TM</sub>	Peak On-State Voltage, max	On-State Current On-State Current $\sqrt{2} \times I_T$ (RMS), Inst. measurement	1.55	V
I <sub>GT1+</sub>	Gate Trigger Current, max	T <sub>j</sub> =25°C, I <sub>T</sub> =1A, VD=6V	50	mA
I <sub>GT1-</sub>		T <sub>j</sub> =25°C, I <sub>T</sub> =1A, VD=6V	50	mA
I <sub>GT3+</sub>			-	mA
I <sub>GT3+</sub>		T <sub>j</sub> =25°C, I <sub>T</sub> =1A, VD=6V	50	mA
V <sub>GT1+</sub>	Gate Trigger Voltage, max	T <sub>j</sub> =25°C, I <sub>T</sub> =1A, VD=6V	3	V
V <sub>GT1-</sub>		T <sub>j</sub> =25°C, I <sub>T</sub> =1A, VD=6V	3	V
V <sub>GT3+</sub>			-	V
V <sub>GT3-</sub>		T <sub>j</sub> =25°C, I <sub>T</sub> =1A, VD=6V	3	
V <sub>GD</sub>	Non-Trigger Gate Voltage, min	T <sub>j</sub> =25°C, VD=1/2VRRM	0.2	V
t <sub>gt</sub>	Turn On Time, max.	I <sub>T</sub> =(RMS), I <sub>G</sub> =100mA, VD=1/2VDRM, T <sub>j</sub> =25°C, di <sub>G</sub> /dt=1A/μS	10	V
dv/dt	Critical Rate of Rise on-State Voltage, min.	T <sub>j</sub> =25°C, VD=2/3VDRM Exponential wave.	500	V/μS
(dv/dt) <sub>c</sub>	Critical Rate of Rise off-State Voltage at commutation, min	T <sub>j</sub> =25°C, VD=2/3VDRM di/dtc=15A/μS	5	V/μS
I <sub>H</sub>	Holding Current, typ.	T <sub>j</sub> =25°C	60	mA
R <sub>th(j-c)</sub>	Thermal Impedance, max	Junction to case	0.9	°C/W

ELECTRICAL SPECIFICATIONS

Power Modules

