TRIAC （ISOLATED TYPE）
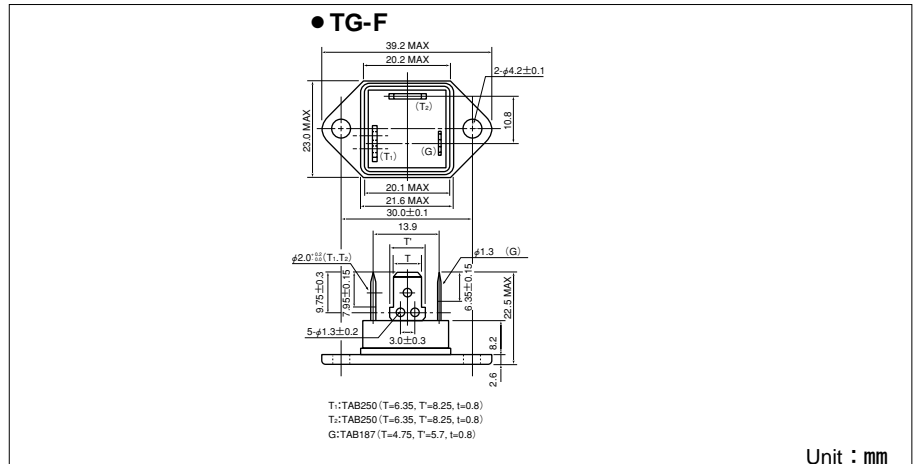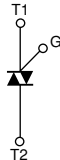
TG35F

TG35F are isolated molded triacs suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light control and heater control.

- $I_{T(AV)}$　35A
- High surge capability　340A
- Isolated Nounting（AC2500V）
- Tab Terminals

● **TG-F**

39.2 MAX
20.2 MAX
2-φ4.2±0.1
(T₂)
10.8
23.0 MAX
(T₁)　(G)
20.1 MAX
21.6±0.1
30.0±0.1
13.9
φ2.0⁺⁰·⁰⁵₀(T₁,T₂)　φ1.3　(G)
T'
T
9.75±0.3
7.95±0.15
6.35±0.15
22.5 MAX
5-φ1.3±0.2
3.0±0.3
8.2
2.6

T₁:TAB250 (T=6.35, T'=8.25, t=0.8)
T₂:TAB250 (T=6.35, T'=8.25, t=0.8)
G:TAB187 (T=4.75, T'=5.7, t=0.8)

Unit：mm

T1
G
T2

■Maximum Ratings

(Tj=25℃ unless otherwise specified)

Symbol	Item	Ratings		Unit
		TG35F40	TG35F60	
V_{DRM}	Repetitive Peak Off-State Voltage	400	600	V

Symbol	Item	Conditions	Ratings	Unit
$I_{T(RMS)}$	R.M.S. On-State Current	Tc＝67℃	35	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, peak, non-repetitive	310/340	A
I^2t	I^2t	Value for one cycle of surge current	485	A²S
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＝½V_{DRM}, dI_G/dt＝1A/μs	50	A/μs
Tj	Operating Junction Temperature		−25 to ＋125	℃
Tstg	Storage Temperature		−40 to ＋125	℃
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）	1.5（15）	N・m (kgf・cm)
	Mass	Typical value （Excluding bolt, nut and wrapping material）	23	g

■Electrical Characteristics

Symbol		Item	Conditions	Ratings	Unit
I_{DRM}		Reptitive Peak Off-State Current, max	V_D=V_{DRM}, Single phase, half wave, Tj=125℃	3	mA
V_{TM}		Peak On-State Voltage, max	On-State Current〔√2×$I_{T(RMS)}$〕, Inst. measurement	1.38	V
I^+_{GT1}	1	Gate Trigger Current, max	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, max	Tj＝25℃, I_T＝1A, V_D＝6V	2.5	V
V^-_{GT1}	2		Tj＝25℃, I_T＝1A, V_D＝6V	2.5	
V^+_{GT3}	3			—	
V^-_{GT3}	4		Tj＝25℃, I_T＝1A, V_D＝6V	2.5	
V_{GD}		Non-Trigger Gate Voltage, min	Tj＝125℃, V_D＝½V_{DRM}	0.2	V
tgt		Turn On Time, max.	$I_{T(RMS)}$, I_G＝100mA, V_D＝½V_{DRM}, Tj＝25℃, dI_G/dt＝1A/μs	10	V
dv/dt		Critical Rate of Rise on-State Voltage,min.	Tj＝125℃, V_D＝⅔V_{DRM}, Exoponential wave.	100	V/μs
〔dv/dt〕c		Critical Rate of Rise off-State Voltage at commutation, min	Tj＝125℃, V_D＝⅔V_{DRM}, 〔di/dt〕c＝15A/ms	10	V/μs
I_H		Holding Current, typ.	Tj＝25℃	30	mA
Rth(j-c)		Thermal Impedance, max	Junction to case	1.5	℃/W

Gate Characteristics

On-State Voltage

On State Current vs. Maximum Power Dissipation

On State Current vs. Allowable Case Temperature

Ambient temp. vs. RMS On-State Current

Surge On-State Current Rating (Non-Repetitive)

Transient Thermal Impedance