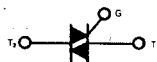


TRIAC (ISOLATED TYPE)

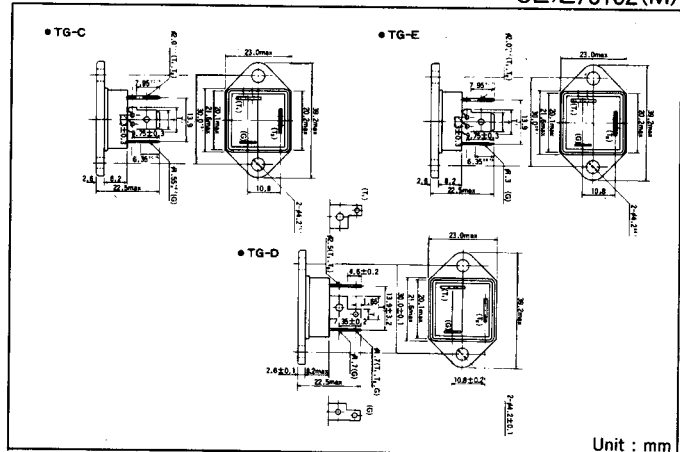
TG16C/E/D

TG16C/E/D 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 (RMS) 6A
- High Surge Capability 160A
- Isolated Mounting (AC2500V)
- Tab Terminals



UL:E76102(M)



Unit : mm

Maximum Ratings

C, E and D type have same electrical characteristics

Symbol	Item	TG16C40	TG16C60	Unit
V_{DRM}	Repetitive Peak off-State Voltage	400	600	V

Symbol	Item	Conditions	Ratings	Unit
I_T (RMS)	R.M.S On-State Current	$T_c = 83^\circ\text{C}$	16	A
I_{TSM}	Surge On-State Current	One cycle, 50/60Hz, peak, non-repetitive	140/160	A
I^2t	I^2t	Value for one cycle of surge current	106	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		$-25 \sim +125$	$^\circ\text{C}$
T_{stg}	Storage Temperature		$-40 \sim +125$	$^\circ\text{C}$
V_{iso}	Isolation Breakdown Voltage (R.M.S)	A.C. 1minute	2500	V
	Mounting Torque	Recommended Value $10\text{kgf}\cdot\text{cm}$	12	$\text{kgf}\cdot\text{cm}$
	Mass	Excluding bolt, nut and wrapping material	23	g

Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-State Current, max.	at V_{DRM} , single phase, half wave, $T_j = 125^\circ\text{C}$	3	mA
V_{TM}	Peak On-State Voltage, max.	$(\sqrt{2} \times I_T \text{ (RMS)})$ $T_j = 25^\circ\text{C}$ Inst. measurement	1.5	V
I_{GT1}^+	Gate Trigger Current, max.	$T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$	50	mA
I_{GT1}^-		$T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$	50	
I_{GT3}^+			—	
I_{GT3}^-		$T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$	50	
V_{GT1}^+	Gate Trigger Voltage, max.	$T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$	3	V
V_{GT1}^-		$T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$	3	
V_{GT3}^+			—	
V_{GT3}^-		$T_j = 25^\circ\text{C}$, $I_T = 1\text{A}$, $V_D = 6\text{V}$	3	
V_{GD}	Non-Trigger Gate Voltage, min.	$T_j = 125^\circ\text{C}$, $V_D = \frac{1}{2} V_{DRM}$	0.2	V
t_{gt}	Turn On Time, max	$I_T \text{ (RMS)}$, $I_G = 100\text{mA}$, $V_D = \frac{1}{2} V_{DRM}$, $T_j = 25^\circ\text{C}$ $di_G/dt = 1\text{A}/\mu\text{s}$	10	μs
dv/dt	Critical Rate of Rise of On-State Voltage, min.	$T_j = 125^\circ\text{C}$, $V_D = \frac{2}{3} V_{DRM}$, Exponential wave.	50	$\text{V}/\mu\text{s}$
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation, min	$T_j = 125^\circ\text{C}$, $(di/dt)_c = 8\text{A}/\text{ms}$, $V_D = \frac{2}{3} V_{DRM}$	6	$\text{V}/\mu\text{s}$
I_H	Holding Current, typ.	$T_j = 25^\circ\text{C}$	30	mA
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	2.0	$^\circ\text{C}/\text{W}$