

TMG12C40/60F

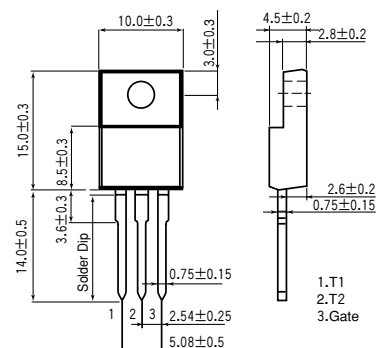
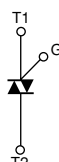
TOP



UL:E76102 (M)

TMG12C40/60F are isolated mold triac suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light and heater control.

- $I_{T(RMS)}$ 12A
- High surge capability 130A
- Full molded isolated type



Unit : mm

■ Maximum Ratings

(Ti=25°C unless otherwise specified)

Symbol	Item	Ratings		Unit
		TMG12C40F	TMG12C60F	
V _{DRM}	Repetitive Peak Off-State Voltage	400	600	V

Symbol	Item	Conditions	Ratings	Unit
$I_T(RMS)$	R.M.S. On-State Current	$T_c=79^{\circ}C$	12	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, peak, non-repetitive	119/130	A
I^2t	I^2t		71	A ² S
P_{GM}	Peak Gate Power Dissipation		5	W
$P_{G(AV)}$	Average Gate Power Dissipation		0.5	W
I_{GM}	Peak Gate Current		2	A
V_{GM}	Peak Gate Voltage		10	V
V_{ISO}	Isolation Breakdown Voltage (R.M.S.)	A.C.1 minute	1500	V
T_j	Operating Junction Temperature		-40 to +125	$^{\circ}C$
T_{stg}	Storage Temperature		-40 to +125	$^{\circ}C$
	Mass		2	g

■Electrical Characteristics

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{DRM}	Repetitive Peak Off-State Current	$V_D=V_{DRM}$, Single phase, half wave, $T_J=125^{\circ}C$			2	mA
V_{TM}	Peak On-State Voltage	$I_T=20A$, Inst. measurement			1.4	V
I_{GT1}^{+}	Gate Trigger Current	$V_D=6V$, $R_L=10\Omega$			30	mA
I_{GT1}^{-}					30	
I_{GT3}^{+}					—	
I_{GT3}^{-}					30	
V_{GT1}^{+}	Gate Trigger Voltage	$V_D=6V$, $R_L=10\Omega$			1.5	V
V_{GT1}^{-}					1.5	
V_{GT3}^{+}					—	
V_{GT3}^{-}					1.5	
V_{GD}	Non-Trigger Gate Voltage	$T_J=125^{\circ}C$, $V_D=\frac{1}{2}V_{DRM}$	0.2			V
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation	$T_J=125^{\circ}C$, $(di/dt)_c=-6A/ms$, $V_D=\frac{2}{3}V_{DRM}$	10			$V/\mu s$
I_H	Holding Current			20		mA
$R_{th}(j-c)$	Thermal Impedance	Junction to case			3.3	$^{\circ}C/W$

