

# TRIAC (ISOLATED TYPE)

# TMG16C40/60F

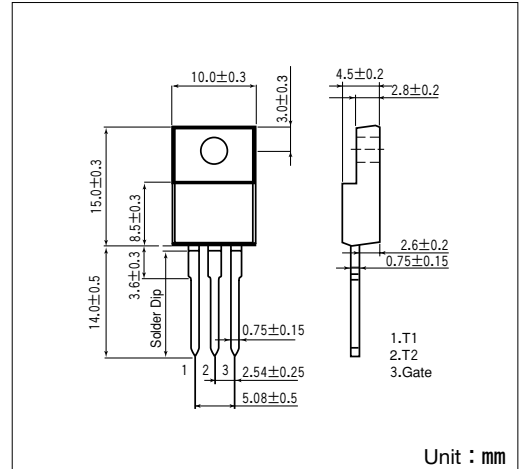
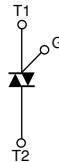
TOP



UL;E76102 (M)

TMG16C40/60F are isolated mold triac suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light and heater control.

- $I_T(\text{RMS})$  16A
- High surge capability 170A
- Full molded isolated type



## Maximum Ratings

( $T_j=25^\circ\text{C}$  unless otherwise specified)

Symbol	Item	Ratings		Unit
		TMG16C40F	TMG16C60F	
$V_{\text{DRM}}$	Repetitive Peak Off-State Voltage	400	600	V

Symbol	Item	Conditions	Ratings	Unit
$I_{T(\text{RMS})}$	R.M.S. On-State Current	$T_c=68^\circ\text{C}$	16	A
$I_{\text{TSM}}$	Surge On-State Current	One cycle, 50Hz/60Hz, peak, non-repetitive	155/170	A
$I^2t$	$I^2t$		120	$\text{A}^2\text{S}$
$P_{\text{GM}}$	Peak Gate Power Dissipation		5	W
$P_{\text{G(AV)}}$	Average Gate Power Dissipation		0.5	W
$I_{\text{GM}}$	Peak Gate Current		2	A
$V_{\text{GM}}$	Peak Gate Voltage		10	V
$V_{\text{ISO}}$	Isolation Breakdown Voltage (R.M.S.)	A.C.1 minute	1500	V
$T_j$	Operating Junction Temperature		-40 to +125	$^\circ\text{C}$
$T_{\text{stg}}$	Storage Temperature		-40 to +125	$^\circ\text{C}$
	Mass		2	g

## Electrical Characteristics

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
$I_{\text{DRM}}$	Reptitive Peak Off-State Current	$V_D=V_{\text{DRM}}$ , Single phase, half wave, $T_j=125^\circ\text{C}$			2	mA
$V_{\text{TM}}$	Peak On-State Voltage	$I_T=25\text{A}$ , Inst. measurement			1.4	V
$I_{\text{GT1}}^+$	Gate Trigger Current	$V_D=6\text{V}$ , $R_L=10\Omega$	1		30	mA
$I_{\text{GT1}}^-$			2		30	
$I_{\text{GT3}}^+$			3		—	
$I_{\text{GT3}}^-$			4		30	
$V_{\text{GT1}}^+$	Gate Trigger Voltage	$V_D=6\text{V}$ , $R_L=10\Omega$	1		1.5	V
$V_{\text{GT1}}^-$			2		1.5	
$V_{\text{GT3}}^+$			3		—	
$V_{\text{GT3}}^-$			4		1.5	
$V_{\text{GD}}$	Non-Trigger Gate Voltage	$T_j=125^\circ\text{C}$ , $V_D=1/2 V_{\text{DRM}}$	0.2			V
$(dv/dt)_c$	Critical Rate of Rise off-State Voltage at commutation	$T_j=125^\circ\text{C}$ , $(di/dt)_c=-8\text{A/ms}$ , $V_D=2/3 V_{\text{DRM}}$	10			$\text{V}/\mu\text{s}$
$I_{\text{H}}$	Holding Current			25		mA
$R_{\text{th(j-c)}}$	Thermal Impedance	Junction to case			3.0	$^\circ\text{C}/\text{W}$

