

SanRex

- Preliminary -

TRIAC (NON-ISOLATED TYPE) TO-3P PACKAGE

TMG40C60

$I_{T(RMS)}=40A$, $V_{DRM}=600V$

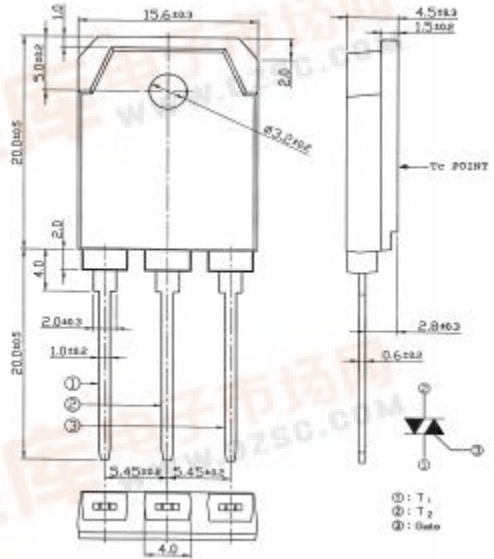
SanRex Triac **TMG40C60** is designed for full-wave AC control applications. It can be used as an ON/OFF function or for phase control operations.

Features

- * Glass-passivated junctions
- * High Surge Current

Typical Applications

- * Heater Control
- * Motor Control
- * Lighting Control
- * Power Supplies



< Maximum Ratings >

($T_j = 25^\circ\text{C}$ Unless Otherwise Specified)

Symbol	Item	Conditions	Ratings	Unit
V_{DRM}	Repetitive Peak Off-State Voltage		600	V
$I_{T(RMS)}$	R.M.S. On-state Current	$T_c = 71^\circ\text{C}$	40	A
I_{TSM}	Surge On-state Current	One cycle, 60Hz, peak value, non-repetitive	330	A
I^2t	I^2t (for fusing)		450	A^2s
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
T_j	Operation Junction Temperature		-40 to +125	$^\circ\text{C}$
T_{stg}	Storage Temperature		-40 to +125	$^\circ\text{C}$
	Mass		6.2	g

< Electrical Characteristics >

($T_j = 25^\circ\text{C}$ Unless Otherwise Specified)

Symbol	Item		Conditions	Ratings			Unit
				Min.	Typ.	Max.	
I_{DRM}	Repetitive Peak Off-state Current		$V_{\text{D}}=V_{\text{DRM}}$, $T_{\text{j}}=125^{\circ}\text{C}$, Single phase, half wave			5	mA
V_{TM}	Peak On-state Voltage		$I_{\text{T}}=56\text{A}$, Inst. Measurement			1.85	V
$I_{\text{GT}}1^{+}$	$Q\text{I}$	Gate Trigger Current	$V_{\text{D}}=6\text{V}$, $R_{\text{L}}=10\Omega$			50	mA
$I_{\text{GT}}1^{-}$	$Q\text{II}$					50	
$I_{\text{GT}}3^{+}$	$Q\text{IV}$			-	-	-	
$I_{\text{GT}}3^{-}$	$Q\text{III}$					50	
$V_{\text{GT}}1^{+}$	$Q\text{I}$	Gate Trigger Voltage				2	V
$V_{\text{GT}}1^{-}$	$Q\text{II}$					2	
$V_{\text{GT}}3^{+}$	$Q\text{IV}$			-	-	-	
$V_{\text{GT}}3^{-}$	$Q\text{III}$					2	
V_{GD}	Non-trigger Gate Voltage		$T_{\text{j}}=125^{\circ}\text{C}$, $V_{\text{D}}=1/2V_{\text{DRM}}$	0.2			V
$(\text{d}v/\text{d}t)_{\text{C}}$	Critical Rate of Rise of Off-State Voltage at Commutation		$T_{\text{j}}=125^{\circ}\text{C}$, $V_{\text{D}}=2/3V_{\text{DRM}}$ $(\text{d}i/\text{d}t)_{\text{C}}=-12.5\text{A/ms}$	6			V/Fs
I_{H}	Holding Current				35		mA
$R_{\text{th}}(\text{j-c})$	Thermal Resistance		Junction to case			1	$^{\circ}\text{C/W}$