

TRIAC For High Temperature

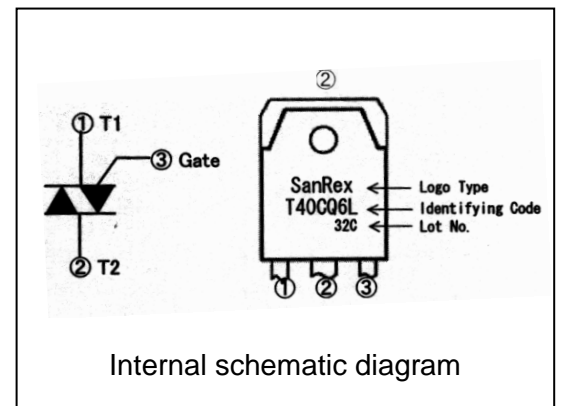
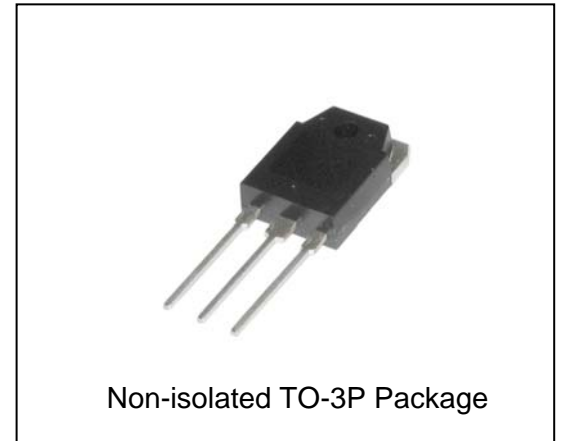
TMG40CQ60L

$I_{T(RMS)}=40A$, $V_{DRM}=600V$, $T_j=150^{\circ}C$

SanRex Triac **TMG40CQ60L** is specially designed for use in high temperature environment. Thanks to SanRex's new isolated diffusion technology, the **TMG40CQ60L** increases $T_j(max)$ from $125^{\circ}C$ to $150^{\circ}C$. This advantage reduces the needed heat sink size or eliminate the heat sink. Reducing cooling parts contributes not only to lower cost but also high efficiency and reliability.

Features

- * Glass-passivated junctions features
- * High surge Current
- * Low voltage drop
- * Lead-free solder plated terminals



Typical Applications

- * Home Appliances
- * Heater Controls
- * Lighting Controls
- * Temperature Controls

< Maximum Ratings >

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

Symbol	Item	Conditions	Ratings	Unit
V_{DRM}	Repetitive Peak Off-state Voltage		600	V
$I_{T(RMS)}$	R.M.S. On-state Current	$T_c = 122^{\circ}C$	40	A
I_{TSM}	Surge On-state Current	One cycle, 60Hz, Peak, non-repetitive	420	A
I^2t	I^2t (for fusing)	Value for one cycle surge current	730	$A^2 s$
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
T_j	Operation Junction Temperature		-40 to +150	$^{\circ}C$
T_{stg}	Storage Temperature		-40 to +150	$^{\circ}C$
	Mass	Typical Value	5.1	g

< Electrical Characteristics >

(T_j = 25°C unless otherwise noted)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I _{DRM}	Repetitive Peak Off-state Current	T _j = 150°C, V _D = V _{DRM} , Single Phase, Half wave			8	mA
V _{TM}	Peak On-State Voltage	I _T = 60A, Instant measurement			1.4	V
I _{GT1+}	QI	V _D = 6V, I _T = 1A			50	mA
I _{GT1-}	QII				50	mA
I _{GT3+}	QIV				-	mA
I _{GT3-}	QIII				50	mA
V _{GT1+}	QI	V _D = 6V, I _T = 1A			1.5	V
V _{GT1-}	QII				1.5	V
V _{GT3+}	QIV				-	V
V _{GT3-}	QIII				1.5	V
V _{GD}	Non-Trigger Gate Voltage	T _j = 150°C, V _D = 1/2V _{DRM}	0.1			V
(dv/dt) _c	Critical Rate of Rise of Commutation Voltage	T _j = 150°C, V _D = 2/3V _{DRM} , (di/dt) _c = -20A/ms	5			V/Fs
I _H	Holding Current			35		mA
R _{th(j-c)}	Thermal Resistance	Junction to case			0.6	°C/W

