

SanRex®

# TRIAC

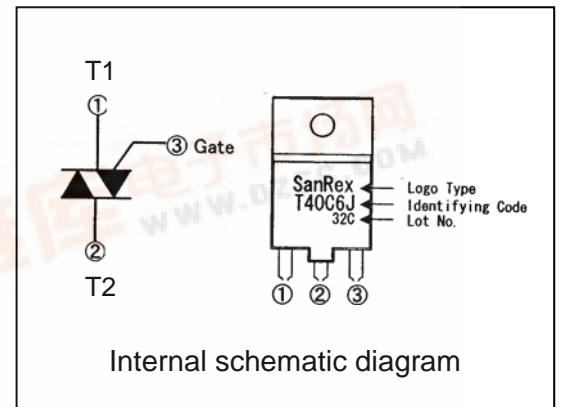
## TMG40C80J

$I_{T(RMS)} = 40A, V_{DRM} = 800V$

SanRex Triac **TMG40C80J** is designed for full wave AC control applications. It can be used as an ON/OFF function or for phase control operation. **TMG40C80J** has an isolated diffusion type die with glass-passivated junctions. It achieves very high reliability and keeping stable design criteria.

### Features

- \* Glass-passivated junctions features
- \* High surge Current
- \* Low voltage drop
- \* Lead-free solder plated terminals
- \* UL registered E76102



### Typical Applications

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

### < Maximum Ratings >

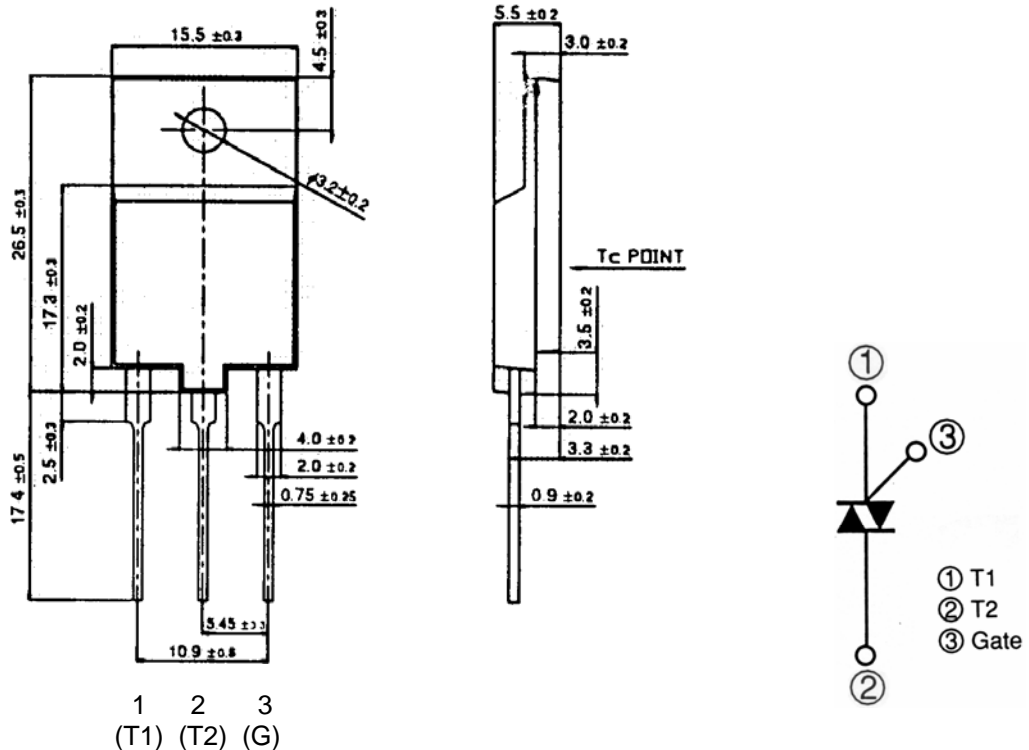
(T<sub>j</sub> = 25°C unless otherwise noted)

Symbol	Item	Conditions	Ratings	Unit
V <sub>DRM</sub>	Repetitive Peak Off-state Voltage		800	V
I <sub>T(RMS)</sub>	R.M.S. On-state Current	T <sub>C</sub> = 73°C	40	A
I <sub>TSM</sub>	Surge On-state Current	One cycle, 60Hz, Peak, non-repetitive	420	A
I <sup>2</sup> t	I <sup>2</sup> t (for fusing)	Value for one cycle surge current	730	A <sup>2</sup> s
P <sub>GM</sub>	Peak Gate Power Dissipation		10	W
P <sub>G(AV)</sub>	Average Gate Power Dissipation		1	W
I <sub>GM</sub>	Peak Gate Current		3	A
V <sub>GM</sub>	Peak Gate Voltage		10	V
V <sub>iso</sub>	Isolation Voltage	A.C. 1 minuite	1500	V
T <sub>j</sub>	Operation Junction Temperature		-40 to +125	°C
T <sub>stg</sub>	Storage Temperature		-40 to +150	°C
Mass	Mass	Typical Value	5.6	g

< Electrical Characteristics >

(T<sub>j</sub> = 25°C unless otherwise noted)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I <sub>DRM</sub>	Repetitive Peak Off-state Current	T <sub>j</sub> = 125°C, V <sub>D</sub> = V <sub>DRM</sub> , Single Phase, Half wave			5	mA
V <sub>TM</sub>	Peak On-State Voltage	I <sub>T</sub> = 60A, Instant measurement			1.4	V
I <sub>GT1+</sub>	QI	V <sub>D</sub> = 6V, I <sub>T</sub> = 1A			50	mA
I <sub>GT1-</sub>	QII				50	mA
I <sub>GT3+</sub>	QIV				-	mA
I <sub>GT3-</sub>	QIII				50	mA
V <sub>GT1+</sub>	QI	V <sub>D</sub> = 6V, I <sub>T</sub> = 1A			1.5	V
V <sub>GT1-</sub>	QII				1.5	V
V <sub>GT3+</sub>	QIV				-	V
V <sub>GT3-</sub>	QIII				1.5	V
V <sub>GD</sub>	Non-Trigger Gate Voltage	T <sub>j</sub> = 125°C, V <sub>D</sub> = 1/2V <sub>DRM</sub>	0.2			V
(dv/dt) <sub>c</sub>	Critical Rate of Rise of Commutation Voltage	T <sub>j</sub> = 125°C, V <sub>D</sub> = 2/3V <sub>DRM</sub> , (di/dt) <sub>c</sub> = -20A/ms	10			V/Fs
I <sub>H</sub>	Holding Current			30		mA
Rth(j-c)	Thermal Resistance	Junction to case			1.1	°C/W



\* Dimensions in millimeters (1mm=0.0394")