

# BI-DIRECTIONAL TRIODE THYRISTOR (TRIAC)

TOSHIBA (DISCRETE/OPTO)

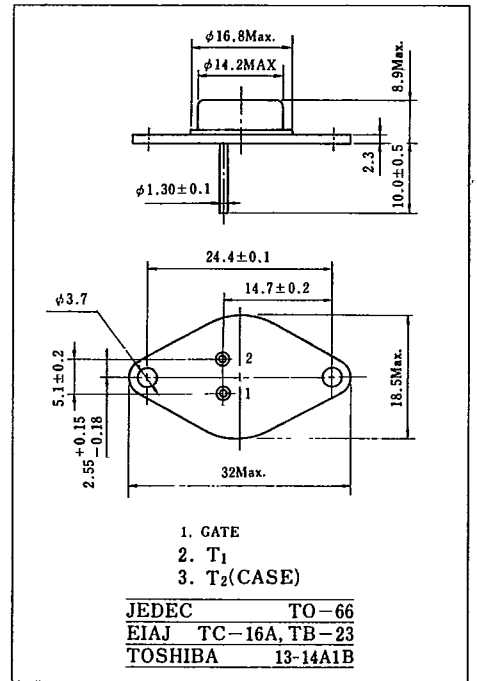
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Unit: mm

**SM16J16** 600V 16A

### MAXIMUM RATING

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage	SM16D16 SM16G16 SM16J16	200 400 600	V
R.M.S. On-State Current (T <sub>c</sub> =75°C)	I <sub>T(RMS)</sub>	16	A
Peak One Cycle Surge On-State Current	I <sub>TSM</sub>	130	A
Peak Gate Power Dissipation	P <sub>GM</sub>	5	W
Average Gate Power Dissipation	P <sub>G(AV)</sub>	0.5	W
Junction Temperature	T <sub>j</sub>	-25~125	°C
Storage Temperature Range	T <sub>stg</sub>	-25~125	°C

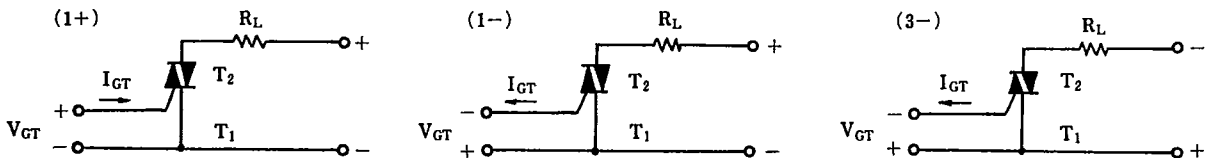


### ELECTRIC CHARACTERISTICS

CHARACTERISTIC	SNMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current	I <sub>DRM</sub>	V <sub>DRM</sub> =Rated, T <sub>c</sub> =125°C	-	-	3	mA
** Gate Trigger Current	I <sub>GT</sub>	V <sub>D</sub> =12V, R <sub>L</sub> =20Ω, T <sub>c</sub> =25°C	-	-	50	mA
** Gate Trigger Voltage	V <sub>GT</sub>	V <sub>D</sub> =12V, R <sub>L</sub> =20Ω, T <sub>c</sub> =25°C	-	-	3	V
Gate Non-Trigger Voltage	V <sub>GD</sub>	V <sub>D</sub> =Rated, T <sub>c</sub> =125°C	0.2	-	-	V
Peak On-State Voltage	V <sub>TM</sub>	I <sub>TM</sub> =25A, T <sub>c</sub> =25°C	-	-	1.5	V
Holding Current	I <sub>H</sub>	R <sub>L</sub> =100Ω, T <sub>c</sub> =25°C	-	-	50	mA
Thermal Resistance *	R <sub>th(j-c)</sub>		-	-	2.5	°C/W

\* Junction to Case

\*\* Principal Voltage-Current Characteristics as Follows.



### GATE TRIGGERING CHARACTERISTICS

