

# BI-DIRECTIONAL TRIODE THYRISTOR (TRIAC)

TOSHIBA (DISCRETE/OPTO)

39 DE 9097250 0002312 4

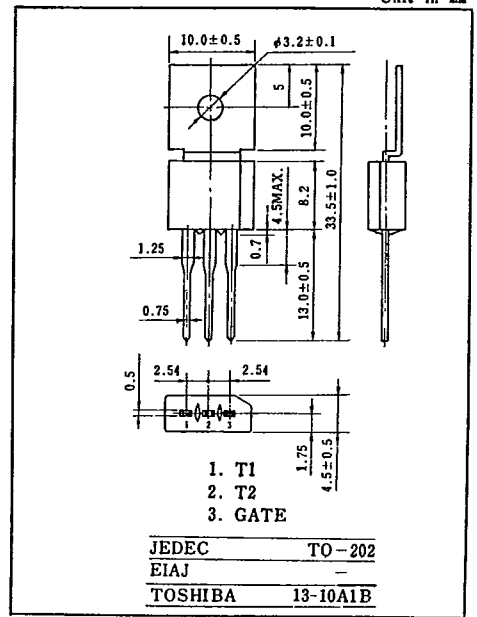
**SM2G41**

400V 2A

Unit in mm

## MAXIMUM RATINGS

CHARACTERISTIC	SNMBOL	RATING	UNIT
Peak Off-State Voltage	SM2B41	100	V
	SM2D41	200	
	SM2G41	400	
R.M.S On-State Current $T_c=70^\circ\text{C}$	$I_T(\text{RMS})$	2.0	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	$I_{\text{TSM}}$	13 (60Hz)	A
		12 (50Hz)	
Peak Gate Power Dissipation	$P_{\text{GM}}$	3	W
Average Gate Power Dissipation	$P_{\text{G(AV)}}$	0.3	W
Junction Temperature	$T_j$	-25~110	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	-25~110	$^\circ\text{C}$

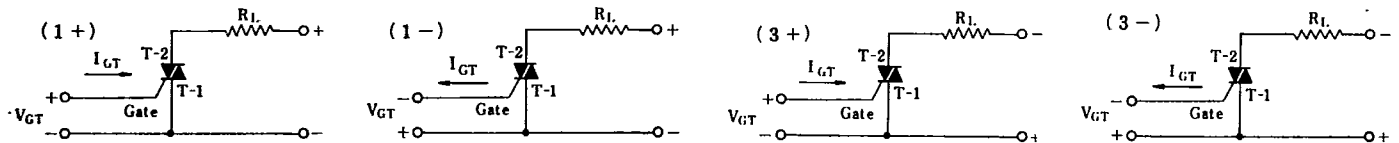


## ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current	$I_{\text{DRM}}$	$V_{\text{DRM}}=\text{Rated}, T_j=110^\circ\text{C}$	-	-	100	$\mu\text{A}$
** Gate Trigger Current	(1+)	$V_D=12\text{V}, R_L=20\Omega, T_c=25^\circ\text{C}$	-	-	15	mA
	(1-)		-	-	15	
	(3+)		-	30	-	
	(3-)		-	-	15	
** Gate Trigger Voltage	(1+)	$V_D=12\text{V}, R_L=20\Omega, T_c=25^\circ\text{C}$	-	-	2.3	V
	(1-)		-	-	2.3	
	(3+)		-	1.8	-	
	(3-)		-	-	2.3	
Gate Non-Trigger Voltage	$V_{\text{GD}}$	$V_D=\text{Rated}, T_c=110^\circ\text{C}$	0.2	-	-	V
Peak On-State Voltage	$V_{\text{TM}}$	$I_{\text{TM}}=6\text{A}, T_c=25^\circ\text{C}$	-	-	2.6	V
Holding Current	$I_{\text{H}}$	$R_L=100\Omega, T_c=25^\circ\text{C}$	-	-	25	mA
Thermal Resistance *	$R_{\text{th(j-c)}}$	AC	-	-	12	$^\circ\text{C}/\text{W}$

\* Junction to Case.

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



## GATE TRIGGERING CHARACTERISTICS

