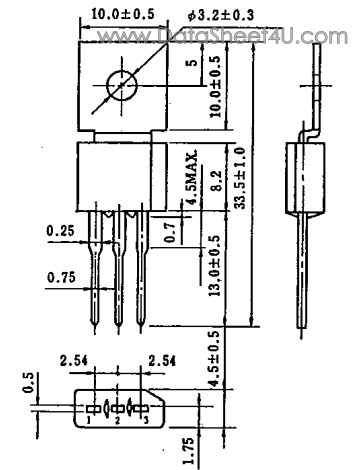


SH2G41

400V 2A

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SH2B41	V_{DRM}	V
	SH2D41	and	
	SH2G41	V_{RRM}	
Non-Repetitive Peak Reverse Voltage (Non-Rep <5ms) $T_j = 0 \sim 110^\circ\text{C}$	SH2B41	V_{RSM}	V
	SH2D41		
	SH2G41		
R.M.S On-State Current	$I_{T(RSM)}$	3.1	A
Average On-State Current (Half Sine Waveform $T_c = 35^\circ\text{C}$)	$I_{T(AV)}$	2.0	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	22(60Hz)	A
		20(50Hz)	
I^2t Limit Value ($t = 1\text{ms} \sim 10\text{ms}$)	I^2t	1.6	A^2s
Peak Gate Power Dissipation	P_{GM}	0.5	W
Average Gate Power Dissipation	$P_{G(AV)}$	0.05	W
Peak Forward Gate Current	I_{GM}	150	mA
Peak Reverse Gate Voltage	V_{RGM}	-5	V
Junction Temperature	T_j	$-40 \sim 110$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-40 \sim 110$	$^\circ\text{C}$



1. CATHODE
2. ANODE
3. GATE

TOSHIBA 13-10A1A

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} and I_{RRM}	$V_{DRM} = V_{RRM} = \text{Rated}$, $T_j = 110^\circ\text{C}$, $R_{GK} = 1\text{k}\Omega$	—	—	200	μA
Peak On-State Voltage	V_{TM}	$I_{TM} = 10\text{A}$, $T_c = 25^\circ\text{C}$	—	—	2.2	V
Gate Trigger Voltage	V_{GT}	$V_D = 6\text{V}$, $R_L = 100\Omega$, $R_{GK} = 1\text{k}\Omega$, $T_c = 25^\circ\text{C}$	—	—	0.8	V
Gate Trigger Current	I_{GT}	$V_D = 6\text{V}$, $R_L = 100\Omega$, $R_{GK} = 1\text{k}\Omega$, $T_c = 25^\circ\text{C}$	—	—	1500	μA
Gate Non-Trigger Voltage	V_{GD}	$V_D = \text{Rated}$, $R_{GK} = 1\text{k}\Omega$, $T_c = 25^\circ\text{C}$	0.2	—	—	V
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{DRM} = \text{Rated}$, $R_{GK} = 1\text{k}\Omega$, Exponential rise, $T_j = 110^\circ\text{C}$	20	—	—	$\text{V}/\mu\text{s}$
Holding Current	I_H	$R_L = 100\Omega$, $R_{GK} = 1\text{k}\Omega$, $T_c = 25^\circ\text{C}$	—	12	—	mA
Turn-Off Time	t_q	$V_D = \text{Rated}$, $I_p = 10\text{A}$, $tw = 10\mu\text{s}$ $dv/dt = 20\text{V}/\mu\text{s}$, $V_{gr} = -2.5\text{V}$, $R_G = 100\Omega$, $T_c = 80^\circ\text{C}$	—	—	15	μs
Thermal Resistance *	$R_{th(j-c)}$	DC	—	—	12	$^\circ\text{C}/\text{W}$

* Junction to Case

GATE TRIGGERING CHARACTERISTICS

