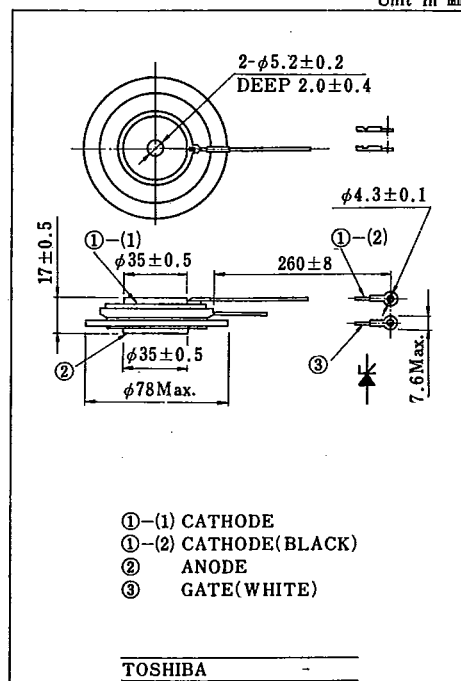


MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage	V_{DRM}	600	V
Non-Repetitive Peak Off-State Voltage ($T_j = 0 \sim 125^\circ\text{C}$)	V_{DSM}	720	V
R.M.S On-State Current	$I_{T(RMS)}$	470(F), 470(R)	A
Average On-State Current	$I_{T(AV)}$	300(F), 300(R)	A
Peak One Cycle Surge On-State Current	I_{TSM}	5500(F), 3850(R) 5000(F), 3500(R)	A
I^2t Limit Value	I^2t	125×10^3 (F), 10×10^3 (R)	A^2s
Critical Rate of Rise of On-State Current	di/dt	200	$\text{A}/\mu\text{s}$
Peak Gate Power Dissipation	P_{GM}	16	W
Average Gate Power Dissipation	$P_{G(AV)}$	3	W
Peak forward gate current	I_{GM}	4	A
Peak forward gate voltage	V_{FGM}	16	V
Peak reverse gate voltage	V_{RGM}	-5	V
Junction Temperature	T_j	$-40 \sim 125$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-40 \sim 125$	$^\circ\text{C}$
Mounting Force Required		1500 ± 150	kg

Note F: Forward R: Reverse



ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current	I_{DRM}	$V_{DRM} = \text{Rated}, T_j = 125^\circ\text{C}$	—	—	30	mA
Peak On-State Voltage	V_{TM}	F: $I_{TM} = 1000\text{A}, T_c = 25^\circ\text{C}$	—	—	1.8	V
		R: $I_{TM} = 1000\text{A}, T_c = 25^\circ\text{C}$	—	—	1.8	
Gate Trigger Voltage	V_{GT}	$V_D = 6\text{V}, R_L = 6\Omega$	$T_c = -40^\circ\text{C}$	—	4.5	V
			$T_c = 25^\circ\text{C}$	—	3.0	
Gate Trigger Current	I_{GT}	$V_D = 6\text{V}, R_L = 6\Omega$	$T_c = -40^\circ\text{C}$	—	300	mA
			$T_c = 25^\circ\text{C}$	—	200	
Gate Non-Triggre Voltage	V_{GD}	$V_D = \text{Rated}, T_c = 125^\circ\text{C}$	0.15	—	—	V
Gate Non-Trigger Current	I_{GD}		1.5	—	—	mA
Delay time	t_d	$V_D = 0.5 \text{ Rated}, T_c = 25^\circ\text{C},$	—	—	3.0	μs
Turn-on time	t_{gt}	Gate Supply ($V_G = 15\text{V}, R_G = 8\Omega, t_r \leq 1\mu\text{s}$)	—	—	6.0	
Turn-off time (Note 1)	t_q	$I_{TM} = 300\text{A}, T = 100\mu\text{s}, I_{RM} = 10\text{A}, V_{DRM}(\text{Reapplied}) = 0.5 \text{ Rated}, dv/dt(c) = 300\text{V}/\mu\text{s}, T_c = 125^\circ\text{C}$	—	—	25	μs
Holding current	I_H	$T_c = 25^\circ\text{C}, R_L = 6\Omega$	—	—	500	mA
Critical rate of rise of commutating off-state Voltage	$dv/dt(c)$	$I_{TM} = 1200\text{A}, I_{RM} = 1000\text{A}, V_{DRM}(\text{Reapplied}) = 0.5 \text{ Rated}, \text{Pulth Width} = 50\mu\text{s}, T_c = 125^\circ\text{C}$	300	—	—	$\text{V}/\mu\text{s}$
Thermal Resistance	$R_{th(j-t)}$	DC (Forward)	—	—	0.06	$^\circ\text{C}/\text{W}$
		DC (Reverse)	—	—	0.09	$^\circ\text{C}/\text{W}$

* Junction to Fin

Note 1. Voltage/current waveform in measuring turn-off time

Note 2. Voltage/current waveform in testing critical rate of rise of commutating, off-state Voltage.

