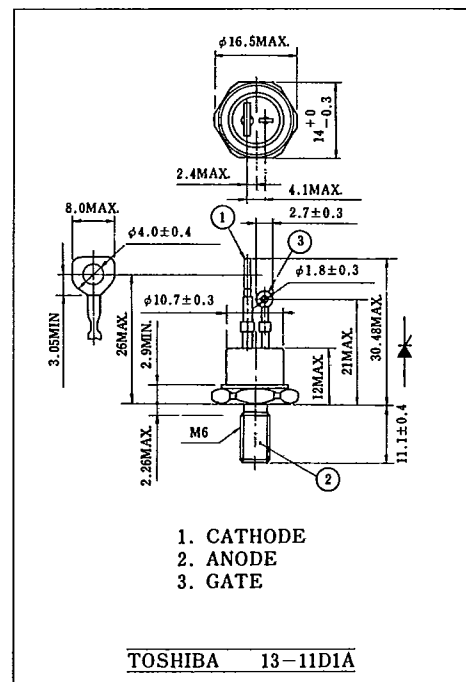


SF10N13

1000V 10V

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF10B13	100	V
	SF10D13	200	
	SF10F13	300	
	SF10G13	400	
	SF10J 13	600	
	SF10L13	800	
	SF10N13	1000	
Non-Repetitive Peak Reverse Voltage (Non-Rep <5ms) $T_j = 0 \sim 125^\circ\text{C}$	SF10B13	150	V
	SF10D13	300	
	SF10F13	400	
	SF10G13	500	
	SF10J 13	720	
	SF10L13	960	
	SF10N13	1200	
Average On-State Current (Half Sine Waveform)	$I_T(\text{AV})$	10	A
R.M.S On-State Current	$I_T(\text{RMS})$	16	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	165(60Hz)	A
		150(50Hz)	
Peak Gate Power Dissipation	P_{GM}	5	W
Average Gate Power Dissipation	$P_{\text{G(AV)}}$	0.5	W
Peak Forward Gate Current	I_{GM}	2	A
Peak Forward Gate Voltage	V_{FGM}	10	V
Peak Reverse Gate Voltage	V_{RGM}	-5	V
Junction Temperature	T_j	-40~110	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40~125	$^\circ\text{C}$
Stud Torque		30	kg cm

**ELECTRICAL CHARACTERISTICS**

CHARACTERISTIC		SYMBOL	CONDITION		MIN.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	SF10B13	IDRM and IRRM	VDRM=VRRM=Rated Tj=110°C		—	15	mA
	SF10D13					10	
	SF10F13					10	
	SF10G13					6	
	SF10J 13					6	
	SF10L13					4	
	SF10N13					4	
Peak On-State Voltage		V _{TM}	I _{TM} =50A, T _c =25°C		—	2.6	V
Gate Trigger Voltage		V _{GT}	V _D =6V, R _L =6Ω	T _c =−40°C	—	3.5	V
				T _c =25°C	—	3.5	
Gate Trigger Current		I _{GT}	V _D =6V, R _L =6Ω	T _c =−40°C	—	150	mA
				T _c =25°C	—	80	
Gate Non-Trigger Voltage		V _{GD}	V _D =0.5Rated, T _c =110°C		0.15	—	V
Gate Non-Trigger Current		I _{GD}	V _D =0.5Rated, T _c =110°C		0.5	—	mA
Holding Current		I _H	T _c =25°C, R _L =100Ω		—	100	mA
Thermal Resistance *		R _{th(j-c)}	DC		—	2.0	°C/W

* Junction to Case

GATE TRIGGERING CHARACTERISTICS