

PHASE CONTROL THYRISTOR

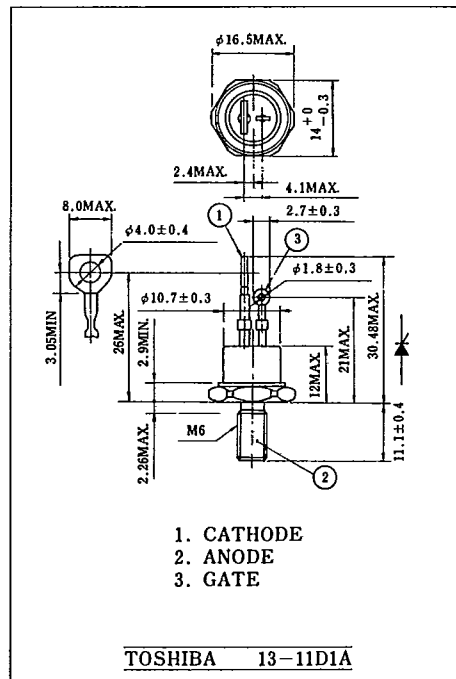
Unit in mm

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	
	SF10J13	600	
	SF10L13	800	
Non-Repetitive Peak Reverse Voltage (Non-Rep <5ms) T _j =0~125°C	SF10B13	150	V
	SF10D13	300	
	SF10F13	400	
	SF10G13	500	
	SF10J13	720	
	SF10L13	960	
Average On-State Current (Half Sine Waveform)	I _{T(AV)}	10	A
R.M.S On-State Current	I _{T(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 _{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	°C
Storage Temperature Range	T _{stg}	-40~125	°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	V _{DRM} =V _{RRM} =Rated T _j =110°C	-	15	mA	
	SF10D13			10		
	SF10F13			10		
	SF10G13			6		
	SF10J13			6		
	SF10L13			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

