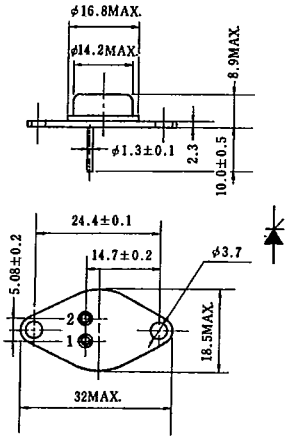
Unit in mm

SF10G14 400V 10A

MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF10B14	V_{DRM} and V_{RRM}	100	V
	SF10D14		200	
	SF10G14		400	
Non-Repetitive Peak Reverse Voltage (Non-Rep <5ms) T_j=0~100℃	SF10B14	V_{RSM}	150	V
	SF10D14		300	
	SF10G14		500	
Average On-State Current (Half Sine Waveform Tc=75℃)		$I_{T(AV)}$	10	A
R.M.S On-State Current		$I_{T(RMS)}$	15	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I_{TSM}	150(50Hz)	A
I^2t Limit Value (t=1ms~10ms)		I^2t	110	A^2s
Peak Forward Gate Voltage		V_{FGM}	10	V
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 Reverse Gate Voltage		V_{RGM}	−5	V
Junction Temperature		T_j	−40~125	℃
Storage Temperature Range		T_{stg}	−40~125	℃



1. GATE
2. CATHODE
3. ANODE (CASE)

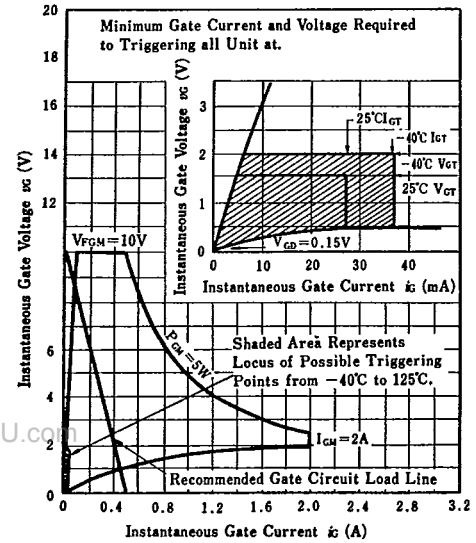
JEDEC	TO−66
EIAJ	TC−16A, TB−23
TOSHIBA	13−14A1A

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} and I_{RRM}	$V_{DRM}=V_{RRM}$=Rated, T_j=125℃	−	−	1.0	mA
Peak On-State Voltage	V_{TM}	I_{TM}=30A, Tc=25℃	−	−	1.8	V
Gate Trigger Current	I_{GT}	V_D=6V, R_L=100Ω, Tc=25℃	−	−	27	mA
Gate Trigger Voltage	V_{GT}	V_D=6V, R_L=100Ω, Tc=25℃	−	−	1.5	V
Gate Non-Trigger Voltage	V_{GD}	V_D=Rated, Tc=125℃	0.2	−	−	V
Critical Rate of Rise of Off-State Voltage	dv/dt	V_{DRM}=Rated, T_j=125℃, Exponential rise	20	−	−	V/μs
Holding Current	I_H	R_L=100Ω, Tc=25℃	−	−	60	mA
Thermal Resistance*	$R_{th(j-c)}$	DC	−	−	2.0	℃/W

* Junction to Case

GATE TRIGGERING CHARACTERISTICS



Tc MAX − IT(AV)