

THYRISTOR
SILICON DIFFUSED TYPE

SF5(B,D,G,J)41

Unit in mm

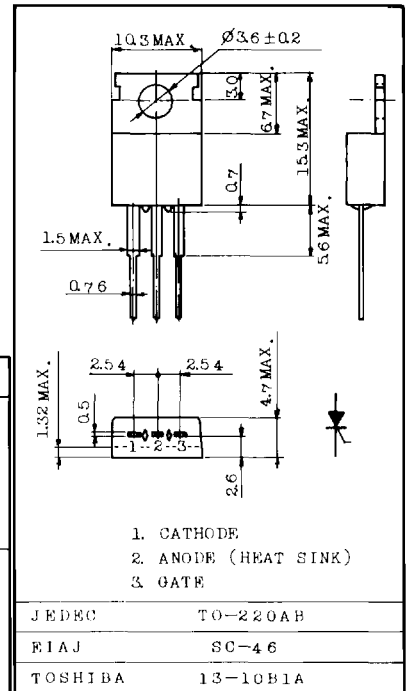
MEDIUM POWER CONTROL APPLICATIONS.

FEATURES:

- . Repetitive Peak Off-State Voltage : V_{DRM} = 100 ~ 600V
- . Repetitive Peak Reverse Voltage : V_{RRM}
- . Average On-State Current : $I_T(AV)$ = 5A
- . JEDEC TO-220AB Package

MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF5B41	V_{DRM}	100	V
	SF5D41		200	
	SF5G41	V_{RRM}	400	
	SF5J41		600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $T_j=0 \sim 125^{\circ}C$)	SF5B41	V_{RSM}	150	V
	SF5D41		300	
	SF5G41		500	
	SF5J41		720	
Average On-State Current (Half Sine Waveform $T_c=91^{\circ}C$)		$I_T(AV)$	5	A
R.M.S On-State Current		$I_T(RMS)$	7.8	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I_{TSM}	80 (50Hz)	A
			88 (60Hz)	
I ² t Limit Value (t=1~10ms)		I ² t	32	A ² s
Peak Gate Power Dissipation		P _{GM}	5	W
Average Gate Power Dissipation		P _{G(AV)}	0.5	W
Peak Forward Gate Voltage		V _{FGM}	10	V
Peak Reverse Gate Voltage		V _{RGM}	-5	V
Peak Forward Gate Current		I _{GM}	2	A
Junction Temperature		T _j	-40 ~ 125	°C
Storage Temperature Range		T _{stg}	-40 ~ 125	°C



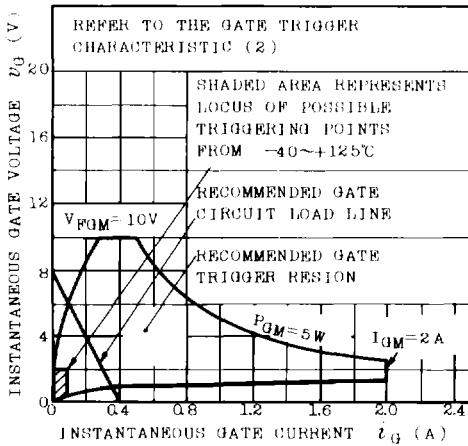
Weight : 2g

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ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} I_{RRM}	$V_{DRM}=V_{RRM}=\text{Rated}$, $T_j=125^\circ\text{C}$	-	-	2	mA
Peak On-State Voltage	V_{TM}	$I_{TM}=15\text{A}$	-	-	1.6	V
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}$, $R_L=10\Omega$	-	-	1.5	V
Gate Trigger Current	I_{GT}		-	-	40	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D=\text{Rated}\times 2/3$, $T_c=125^\circ\text{C}$	0.2	-	-	V
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{DRM}=\text{Rated}$, $T_c=125^\circ\text{C}$ Exponential Rise	30	-	-	V/ μs
Holding Current	I_H	$R_L=100\Omega$	-	-	60	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	3	$^\circ\text{C/W}$

GATE TRIGGER CHARACTERISTIC (1)



GATE TRIGGER CHARACTERISTIC (2)

