

SF3(B,D,G,J)41

THYRISTOR
SILICON DIFFUSED TYPE

LOW POWER CONTROL APPLICATIONS.

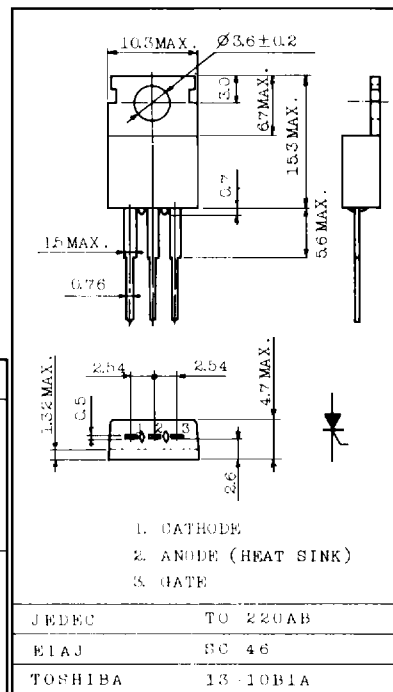
Unit in mm

FEATURES:

- Repetitive Peak Off-State Voltage : V_{DRM} $I_T=100 \sim 600V$
- Repetitive Peak Reverse Voltage : V_{RRM}
- Average On-State Current : $I_T(AV)=3A$
- JEDEC TO-220AB Package

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	SF3B41	100	V
	SF3D41	200	
	SF3G41	400	
	SF3J41	600	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive < 5ms, $T_j=0 \sim 125^{\circ}C$)	SF3B41	150	V
	SF3D41	300	
	SF3G41	500	
	SF3J41	720	
Average On-State Current (Half Sine Waveform $T_c=102^{\circ}C$)	$I_T(AV)$	3	A
R.M.S On-State Current	$I_T(RMS)$	4.7	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	60(50Hz)	A
		66(60Hz)	
I^2t Limit Value ($t=1 \sim 10ms$)	I^2t	18	A^2s
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}	3	A
Junction Temperature	T_j	-40 ~ 125	$^{\circ}C$
Storage Temperature Range	T_{stg}	-40 ~ 125	$^{\circ}C$



Weight : 2g

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} I_{RRM}	$V_{\text{DRM}}=V_{\text{RRM}}=\text{Rated}$, $T_j=125^{\circ}\text{C}$	-	-	500	μA
Peak On-State Voltage	V_{TM}	$I_{\text{TM}}=12\text{A}$	-	-	1.6	V
Gate Trigger Voltage	V_{GT}	$V_{\text{D}}=6\text{V}$, $R_{\text{L}}=10\Omega$	-	-	1.5	V
Gate Trigger Current	I_{GT}		-	-	40	mA
Gate Non-Trigger Voltage	V_{GD}	$V_{\text{D}}=\text{Rated}$, $T_c=125^{\circ}\text{C}$	0.2	-	-	V
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{\text{DRM}}=\text{Rated}$, $T_c=125^{\circ}\text{C}$ Exponential Rise	100	-	-	$\text{V}/\mu\text{s}$
Holding Current	I_{H}	$R_{\text{L}}=100\Omega$	-	-	60	mA
Thermal Resistance	$R_{\text{th(j-c)}}$	Junction to Case	-	-	3.2	$^{\circ}\text{C}/\text{W}$

