

THYRISTOR
SILICON PLANAR TYPE

SFOR1(A,B,D,G)42

LOW POWER SWITCHING AND CONTROL APPLICATIONS.

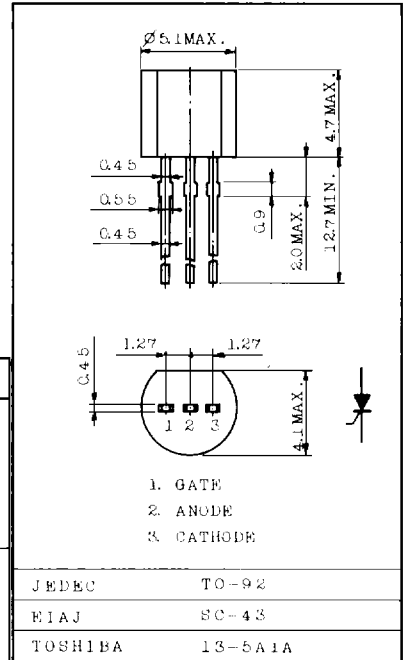
Unit in mm

FEATURES:

- . Repetitive Peak Off-State Voltage: $V_{DRM} = 50 \sim 400V$
 Repetitive Peak Reverse Voltage : V_{RRM}
- . Average On-State Current : $I_{T(AV)} = 100mA$
- . Plastic Mold Type

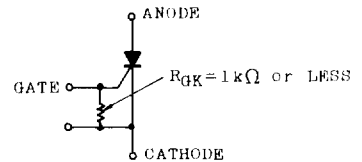
MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage (RGK=1kΩ)	SFOR1A42	50	V
	SFOR1B42	100	
	SFOR1D42	200	
	SFOR1G42	400	
Non-Repetitive Peak Reverse Voltage (Non-Repetitive <5ms, RGK=1kΩ, Tj=0~125°C)	SFOR1A42	75	V
	SFOR1B42	150	
	SFOR1D42	300	
	SFOR1G42	500	
Average On-State Current (Half Sine Waveform Ta=80°C)	$I_{T(AV)}$	100	mA
R.M.S On-State Current	$I_{T(RMS)}$	150	mA
Peak One Cycle Surge On-State Current (Non-Repetitive)	I_{TSM}	4 (50Hz)	A
		4.4 (60Hz)	
I^2t Limit Value (t=1~10ms)	I^2t	0.08	A ² s
Peak Gate Power Dissipation	PGM	0.1	W
Average Gate Power Dissipation	$P_{G(AV)}$	0.01	W
Peak Forward Gate Voltage	V_{FGM}	3.5	V
Peak Reverse Gate Voltage	V_{RGM}	-5	V
Peak Forward Gate Current	I_{GM}	125	mA
Junction Temperature	Tj	-40~125	°C
Storage Temperature Range	Tstg	-40~125	°C



Weight : 0.2g

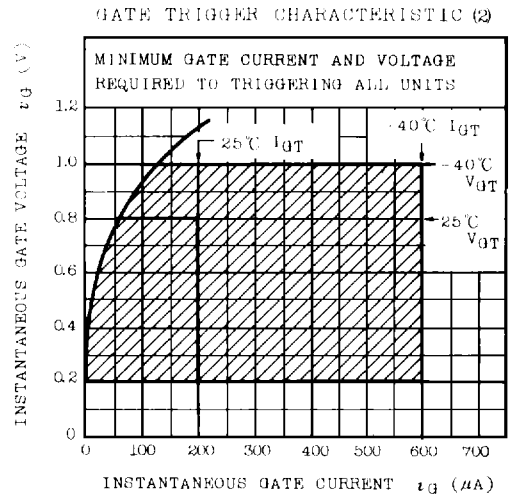
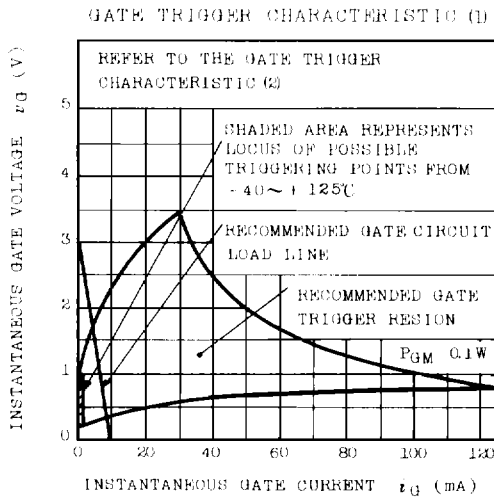
Note : Should be used with gate resistance as follows.

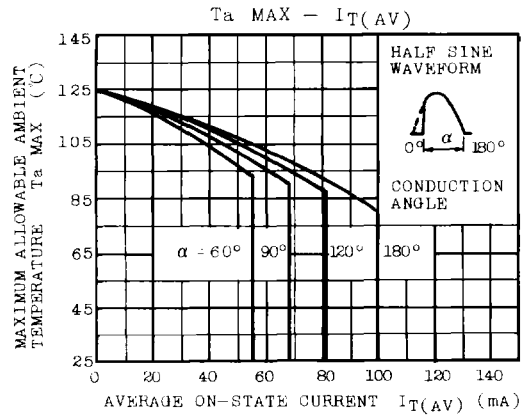
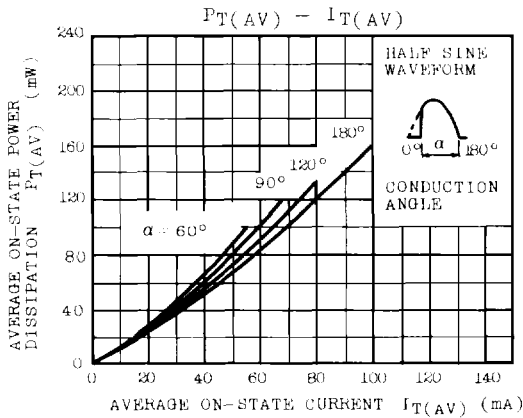
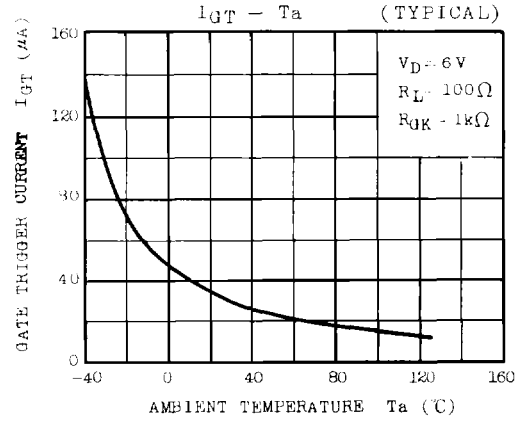
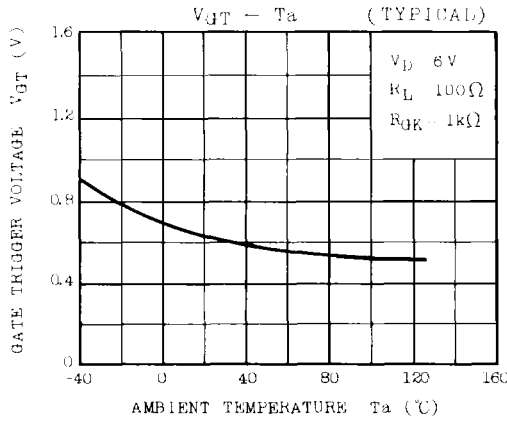
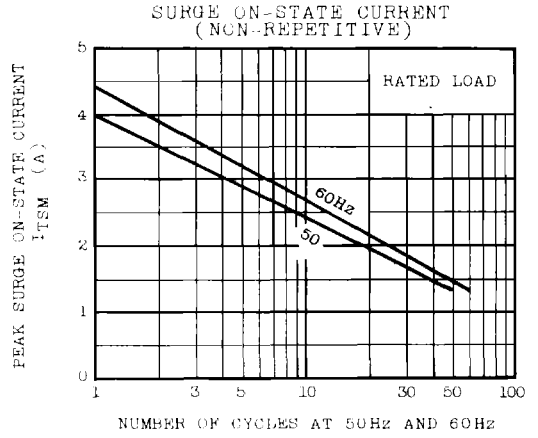
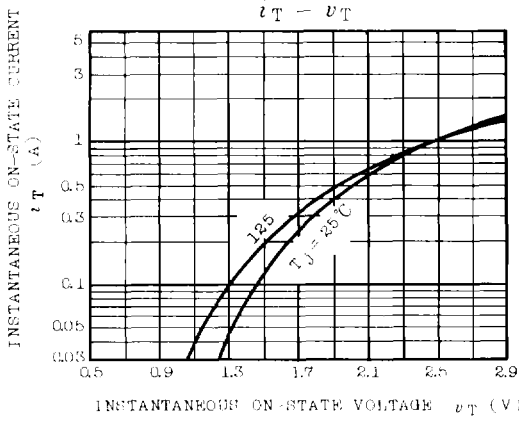


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ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM} I_{RRM}	$V_{DRM}=V_{RRM}=\text{Rated}$, $T_j=125^\circ\text{C}$, $R_{GK}=1\text{k}\Omega$	-	-	100	μA
Peak On-State Voltage	V_{TM}	$I_{TM}=1\text{A}$	-	-	2.5	V
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}$, $R_L=100\Omega$, $R_{GK}=1\text{k}\Omega$	-	-	0.8	V
Gate Trigger Current	I_{GT}		-	-	200	μA
Gate Non-Trigger Voltage	V_{GD}	$V_D=6\text{V}$, $R_{GK}=1\text{k}\Omega$, $T_a=125^\circ\text{C}$	0.2	-	-	V
Holding Current	I_H	$R_L=100\Omega$, $R_{GK}=1\text{k}\Omega$	-	3	-	mA
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient	-	-	250	$^\circ\text{C}/\text{W}$





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