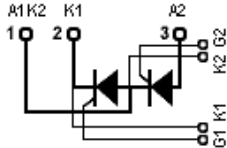
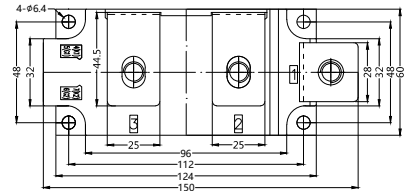
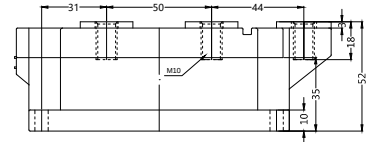


STT240GK38BT

Thyristor-Thyristor Modules



Dimensions in mm (1mm=0.0394")



Type	V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V
STT240GK30BT	3400	3000
STT240GK32BT	3600	3200
STT240GK34BT	3800	3400
STT240GK36BT	4000	3600
STT240GK38BT	4200	3800
STT240GK40BT	4400	4000
STT240GK42BT	4600	4200

Symbol	Test Conditions	Maximum Ratings	Unit
I_{TRMS} , I_{FRMS} I_{TAVM} , I_{FAVM}	$T_{VJ}=T_{VJM}$ $T_C=85^{\circ}\text{C}$; 180° sine	377 240	A
I_{TSM} , I_{FSM}	$T_{VJ}=45^{\circ}\text{C}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	9000 10900	A
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	8000 9600	
$\int i^2 dt$	$T_{VJ}=45^{\circ}\text{C}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	470000 565000	A^2s
	$T_{VJ}=T_{VJM}$ $V_R=0$ $t=10\text{ms}$ (50Hz), sine $t=8.3\text{ms}$ (60Hz), sine	414000 496000	
$(di/dt)_{cr}$	$T_{VJ}=T_{VJM}$ $f=50\text{Hz}$, $t_p=200\mu\text{s}$ $V_D=2/3V_{DRM}$ $I_G=1\text{A}$ $di/dt=1\text{A}/\mu\text{s}$	repetitive 150	A/ μs
	non repetitive, $I_T=I_{TAVM}$	500	
$(dv/dt)_{cr}$	$T_{VJ}=T_{VJM}$; $V_{DR}=2/3V_{DRM}$ $R_{GK}=\infty$; method 1 (linear voltage rise)	1000	V/ μs
P_{GM}	$T_{VJ}=T_{VJM}$ $I_T=I_{TAVM}$ $t_p=30\mu\text{s}$ $t_p=500\mu\text{s}$	120 60	W
P_{GAV}		8	W
V_{RGM}		10	V
T_{VJ} T_{VJM} T_{stg}		-40...+140 140 -40...+125	$^{\circ}\text{C}$
V_{ISOL}	50/60Hz, RMS $I_{ISOL}\leq 1\text{mA}$ $t=1\text{min}$ $t=1\text{s}$	3000 3600	V~
M_d	Mounting torque (M6) Terminal connection torque (M10)	4.5-7/40-60 11-13/97-115	Nm/lb.in.
Weight	Typical	1500	g

Sirectifier®

STT240GK38BT

Thyristor-Thyristor Modules

Symbol	Test Conditions	Characteristic Values	Unit
I_{RRM}	$T_{VJ}=T_{VJM}; V_R=V_{RRM}$	50	mA
V_{TM}	$I_{TM}=720A; T_{VJ}=25^{\circ}C$	3.50	V
V_{TO}	For power-loss calculations only ($T_{VJ}=T_{VJM}$)	1.560	V
r_T		2.14	mΩ
V_{GT}	$V_D=6V;$ $T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	3 4	V
I_{GT}	$V_D=6V;$ $T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	200 300	mA
V_{GD}	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	0.25	V
I_{GD}	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	10	mA
I_L	$T_{VJ}=25^{\circ}C; t_p=30\mu s; V_D=6V$ $I_G=1A; di_G/dt=1A/\mu s$	400	mA
I_H	$T_{VJ}=25^{\circ}C; V_D=6V; R_{GK}=\infty$	300	mA
t_{gd}	$T_{VJ}=25^{\circ}C; V_D=1/2V_{DRM}$ $I_G=1A; di_G/dt=1A/\mu s$	2	μs
t_q	$T_{VJ}=T_{VJM}; I_T=240A; t_p=200\mu s; -di/dt=10A/\mu s$ $V_R=100V; dv/dt=50V/\mu s; V_D=2/3V_{DRM}$ typ.	250	μs
R_{thJC}	DC current	0.0320	K/W
R_{thJK}	DC current	0.048	K/W
ds	Creeping distance on surface	12.7	mm
da	Creepage distance in air	9.6	mm
a	Maximum allowable acceleration	50	m/s ²

FEATURES

- * International standard package
- * Copper base plate
- * Pressure Contact Technology
- * BusBar Terminal
- * Isolation voltage 3600 V~
- * RoHS compliant

APPLICATIONS

- * Motor control, softstarter
- * Power converter
- * Heat and temperature control for industrial furnaces and chemical processes
- * Lighting control
- * Solid state switches

ADVANTAGES

- * Simple mounting
- * Improved temperature and power cycling
- * Reduced protection circuits



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