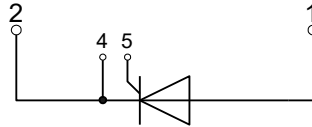
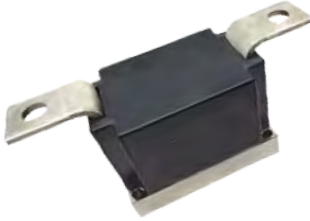


STO630GKxxBT

Thyristor Module



Type	V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V
STO630GK08BT	900	800
STO630GK12BT	1300	1200
STO630GK14BT	1500	1400
STO630GK16BT	1700	1600
STO630GK18BT	1900	1800
STO630GK20BT	2100	2000
STO630GK22BT	2300	2200
STO630GK24BT	2500	2400
STO630GK26BT	2700	2600

Symbol	Test Conditions		Maximum Ratings	Unit
I_{TAV}	$T_C=85^{\circ}\text{C}$; 180° half sine wave, 50HZ		630	A
I_{TRMS}	$T_C=85^{\circ}\text{C}$; 180° Full cycle sine wave, 50HZ		1500	A
I_{TSM}	$T_{VJ}=T_{VJM}$ $T_C=25^{\circ}\text{C}$	180° half sine wave, 50HZ single pulse; $V_R=0$;	25.5	KA
I^2t	$T_{VJ}=T_{VJM}$ $T_C=25^{\circ}\text{C}$	Gate pulse; 20V, 5W 1us rise time, 500us	3250	$\text{A}^2\text{s} \cdot 10^3$
V_{DRM} , V_{RRM}	$T_{VJ}=T_{VJM}$ 180° half sine wave, 50HZ ; Gate open		800/1800	V
V_{DSM} , V_{RSM}	$T_{VJ}=T_{VJM}$ 180° half sine wave, 50HZ ; single pulse, Gate opent		900/1900	
$(di/dt)_{cr}$	repetitive, $I_T=960\text{A}$ $f=50\text{Hz}$, $t_p=200\mu\text{s}$ $V_D=2/3V_{DRM}$ $I_G=1\text{A}$		100	A/us
	non repetitive, $I_T=I_{TAVM}$ $di/dt=1\text{A/us}$		200	
$(dv/dt)_{cr}$	$T_{VJ}=T_{VJM}$; $V_{DR}=2/3V_{DRM}$ $R_{GK}=\infty$; method 1 (linear voltage rise)		1000	V/us
P_{GM}	$T_{VJ}=T_{VJM}$		40	W
P_{GAV}	$T_{VJ}=T_{VJM}$		6	W
V_{RGM}	$T_{VJ}=T_{VJM}$		5	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 (M12)		4.5-7/40-60 16-19/142-168	Nm/lb.in.
Weight	typical		1950	g

Sirectifier®

STO630GKxxBT

Thyristor Module

Symbol	Test Conditions	Characteristic Values	Unit
IRRM	$T_{VJ}=T_{VJM}; V_R=V_{RRM}$	70	mA
V_T	$I_T=2400A; T_{VJ}=25^{\circ}C$	1.55	V
V_{TO}	For power-loss calculations only ($T_{VJ}=T_{VJM}$)	0.9	V
r_T		0.21	mΩ
V_{GT}	$V_D=12V; T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	2.5 3.5	V
I_{GT}	$V_D=12V; T_{VJ}=25^{\circ}C$ $T_{VJ}=-40^{\circ}C$	300 400	mA
V_{GD}	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	0.5	V
I_{GD}	$T_{VJ}=T_{VJM}; V_D=2/3V_{DRM}$	10	mA
I_L	$T_{VJ}=25^{\circ}C; t_p=30\mu s; V_D=12V$ $I_G=1A; di_G/dt=1A/\mu s$	1000	mA
I_H	$T_{VJ}=25^{\circ}C; V_D=6V; R_{GK}=\infty$	500	mA
t_{gd}	$T_{VJ}=25^{\circ}C; V_D=1/2V_{DRM}$ $I_G=1A; di_G/dt=1A/\mu s$	10	μs
t_q	$T_{VJ}=T_{VJM}; I_T=500A; t_p=200\mu s; -di/dt=10A/\mu s$ $V_R=100V; dv/dt=50V/\mu s; V_D=2/3V_{DRM}$ typ.	200	μs
R_{thJC}	DC current	0.0405	K/W
R_{thJK}	DC current	0.01	K/W
ds	Creeping distance on surface	12.7	mm
dA	Creepage distance in air	9.6	mm
a	Maximum allowable acceleration	59.81	m/s ²

FEATURES

- * International standard package
- * Copper base plate
- * Passivated chips
- * 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

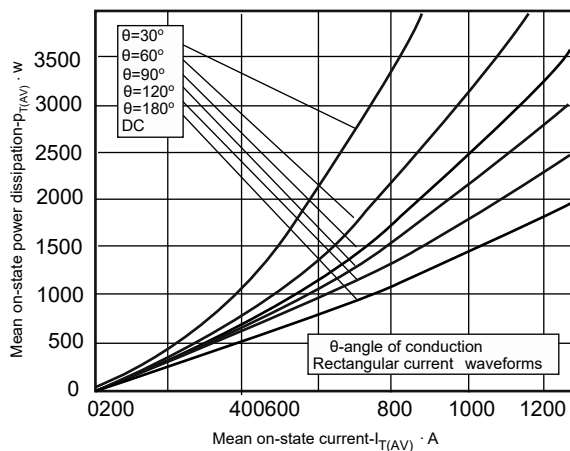
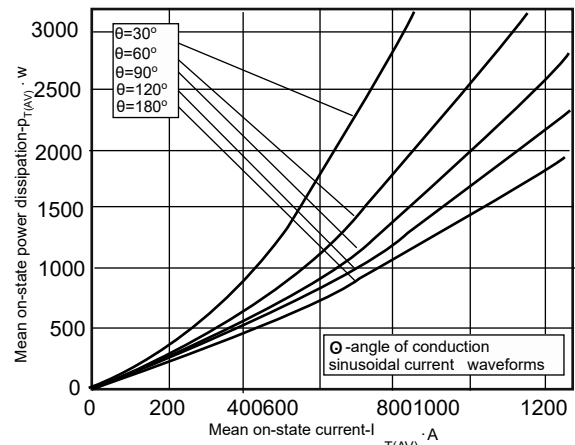
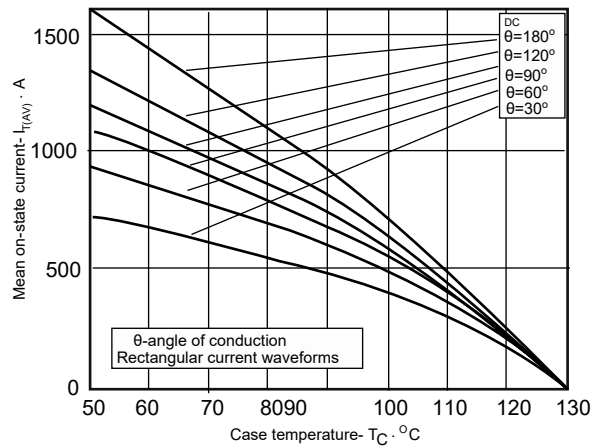
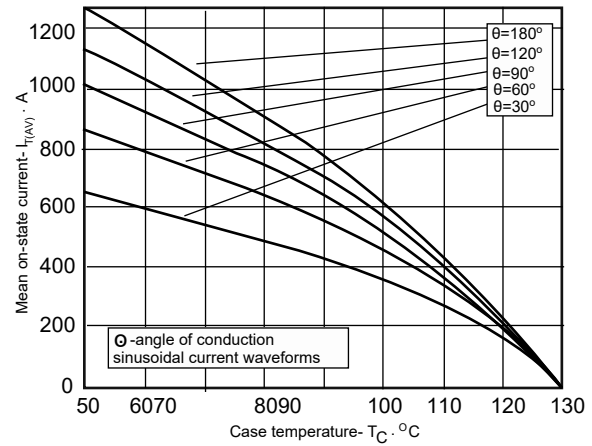
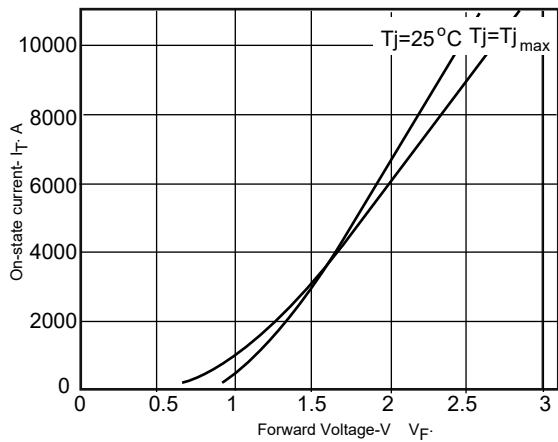
- * Simple mounting
- * Improved temperature and power cycling
- * Reduced protection circuits



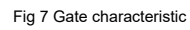
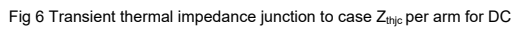
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Thyristor Module



Thyristor Module



Dimensions in mm (1mm=0.0394")

