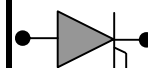


# PHASE CONTROL THYRISTOR H45TBXX

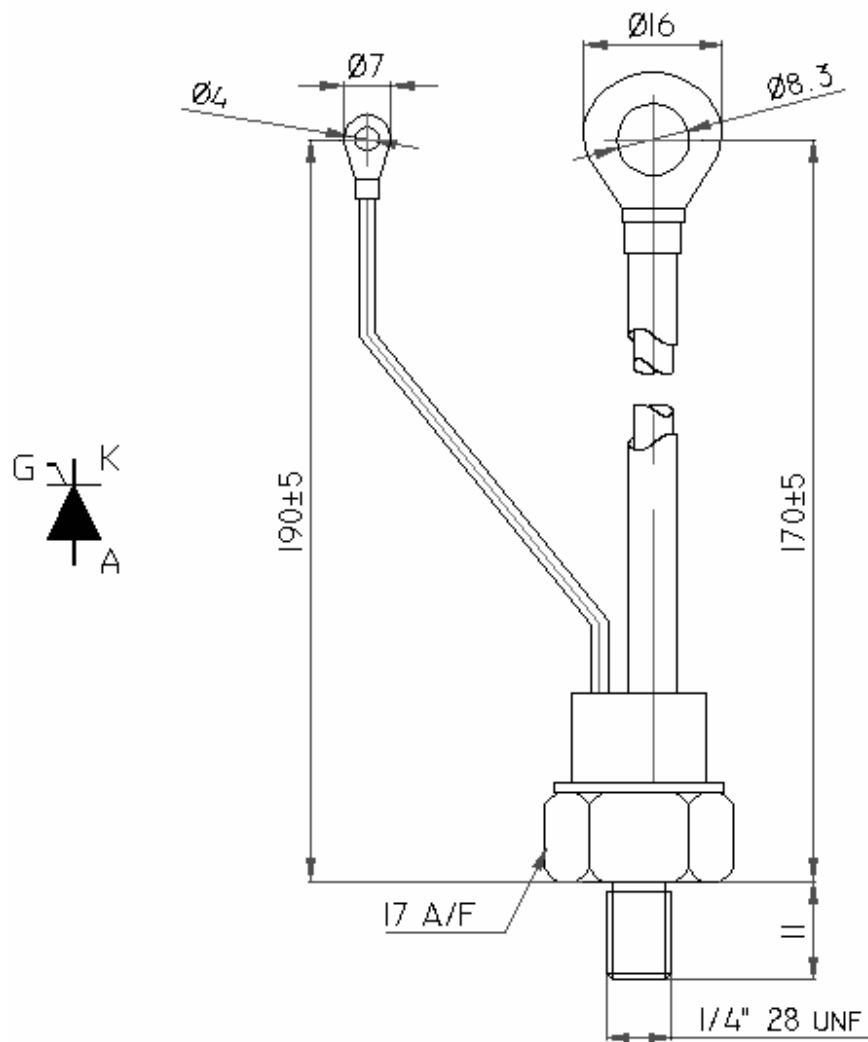
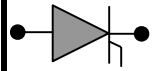


Symbol	Characteristics	Conditions	T <sub>J</sub> (°C)	Value	Unit
<b>BLOCKING PARAMETERS</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		125	200-1600	V
V <sub>DRM</sub>	Repetitive peak off-stage voltage		125	200-1600	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	125	10	mA
I <sub>DRM</sub>	Repetitive peak off-state current	V = V <sub>RRM</sub>	125	10	mA
dV/dT	Rep. rate of change of voltage	@ 67%V <sub>DRM</sub>	125	600	V/μS
<b>CONDUCTING PARAMETERS</b>					
I <sub>F(AV)</sub>	Average on-state current	180 sine, 50Hz, T <sub>C</sub> = 85°C		45	A
I <sub>RMS</sub>	RMS on-state current			70	A
I <sub>TSM</sub>	Surge on-state current	Sine wave, 10mS without reverse voltage	125	800	A
I <sup>2</sup> t	I <sup>2</sup> t			3200	A <sup>2</sup> S
V <sub>T</sub>	Peak on-state voltage drop	On-state current = 150A	125	1.72	V
V <sub>0</sub>	Threshold voltage		125	0.95	V
R <sub>0</sub>	On-state slope resistance		125	4.50	mΩ
di/dt	Repetitive rate of rise of current	dI <sub>G</sub> /dT = 1A/μS V <sub>GK</sub> = 1V	125	120	A/μS
<b>TRIGGERING PARAMETERS</b>					
I <sub>GT</sub>	Gate trigger current	V <sub>D</sub> = 5V	25	150	mA
V <sub>GT</sub>	Gate trigger voltage		25	2.50	V
I <sub>L</sub>	Latching Current	V <sub>D</sub> = 5V	25	400	mA
I <sub>H</sub>	Holding Current	V <sub>D</sub> = 5V	25	300	mA
P <sub>G -PEAK</sub>	Maximum Peak Gate Power	Pulse width 100μSec		30	W
di/dt	Repetitive rate of rise of current			120	A/μS
V <sub>FGM</sub>	Maximum forward gate voltage			12	V
I <sub>FGM</sub>	Maximum forward gate current			10	A
<b>THERMAL &amp; MECHANICAL PARAMETERS</b>					
R <sub>TH (J-C)</sub>	Thermal impedance, 180 conduction, Sine	Junction to case		0.60	°C/W
R <sub>TH (C-HK)</sub>	Thermal impedance	Case to heatsink		0.20	°C/W
T <sub>J</sub>	Maximum Permissible junction temperature			125	°C
T <sub>STG</sub>	Storage temperature range			-40 - 125	°C
F	Mounting Torque			4	NM
W	Weight			45	gms

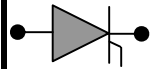


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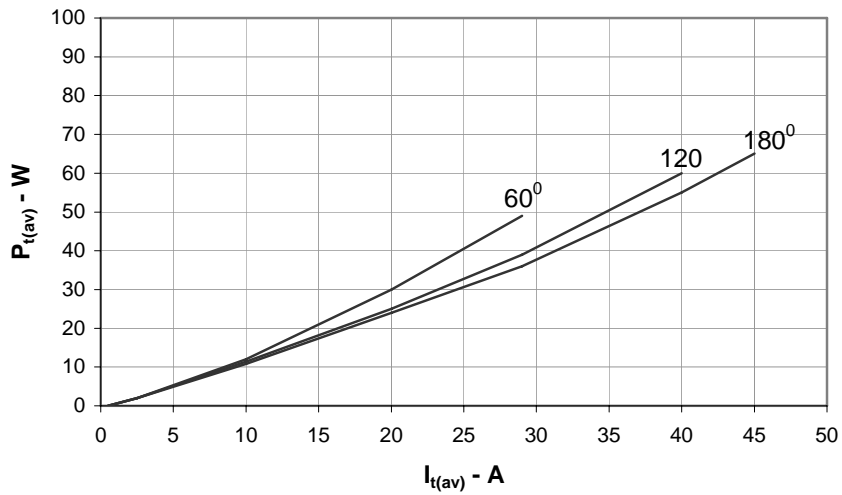
# PHASE CONTROL THYRISTOR H45TBXX



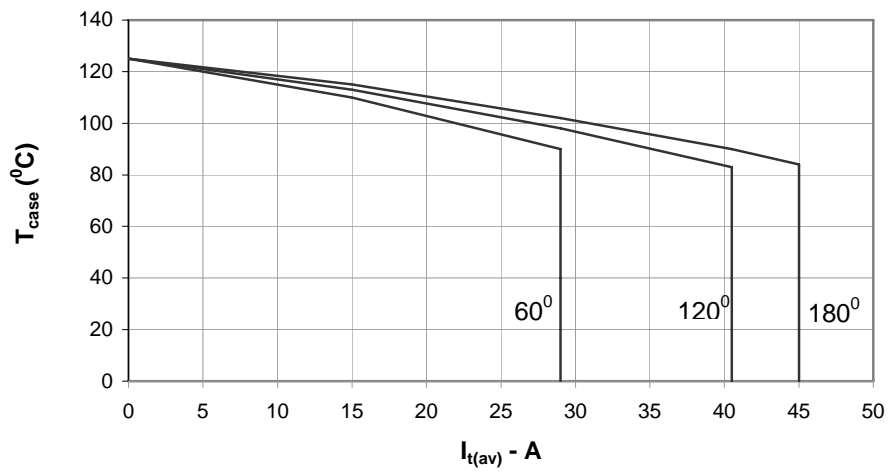
All dimensions in mm

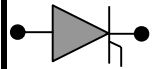


On State Power Loss

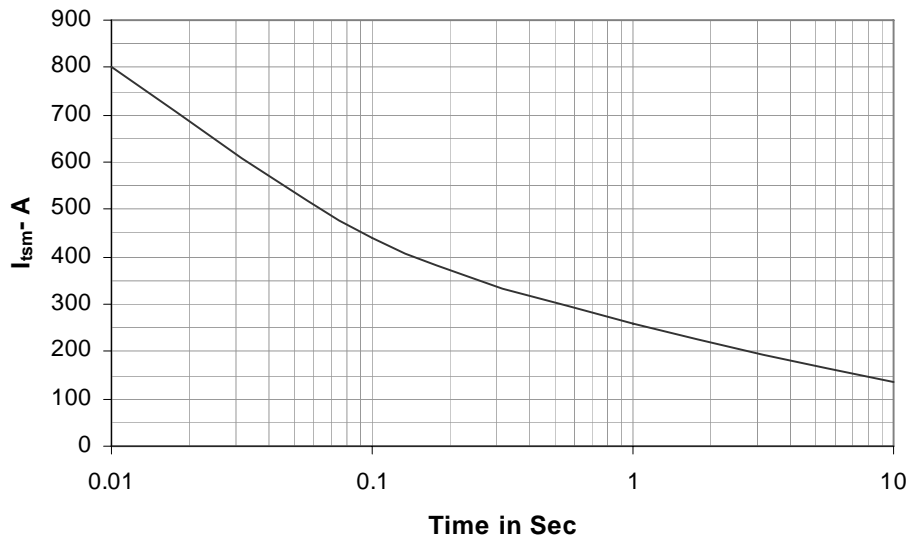


Maximum Permissible Case Temp

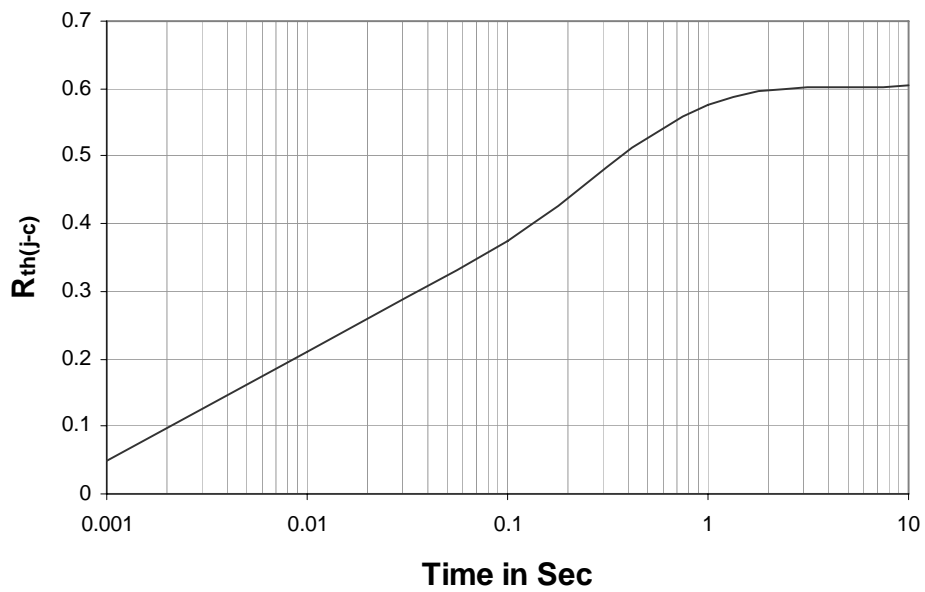


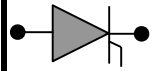


Max non repetitive Surge Current

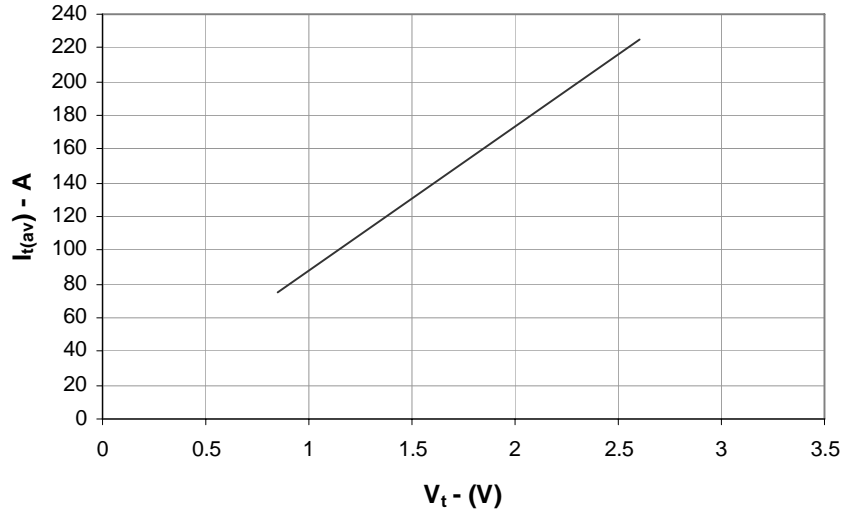


Transient Thermal Impedance Junction to Case

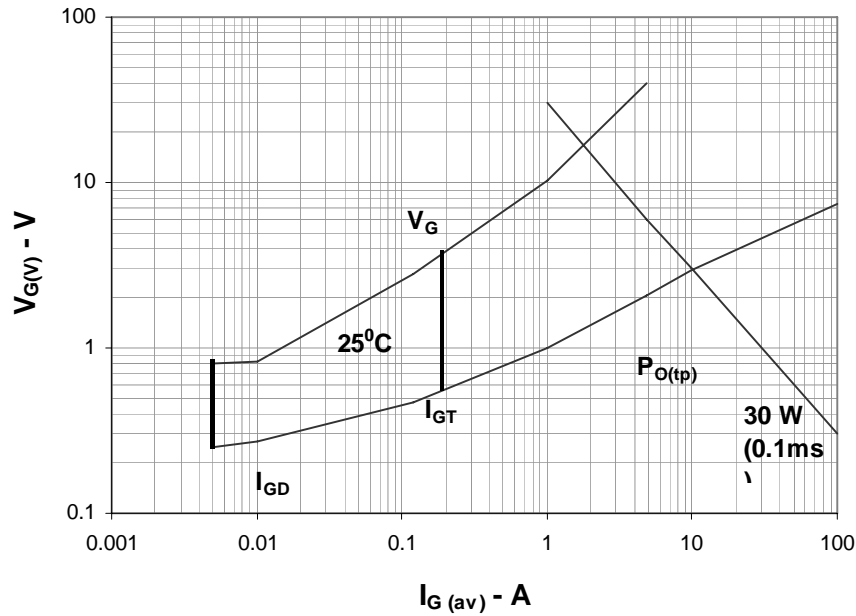




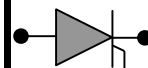
On State Characteristics



Gate Trigger Characteristics



# PHASE CONTROL THYRISTOR H45TBXX



## Ordering Information: -

H	45	TB	XX
Hirect make Thyristor	$I_{F(AV)} = 45A$	TB – with a Pigtail	$V_{RRM} = XX \times 100$ e.g. $12 * 100 = 1200V$

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This datasheet specifies technical information for semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

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