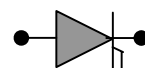


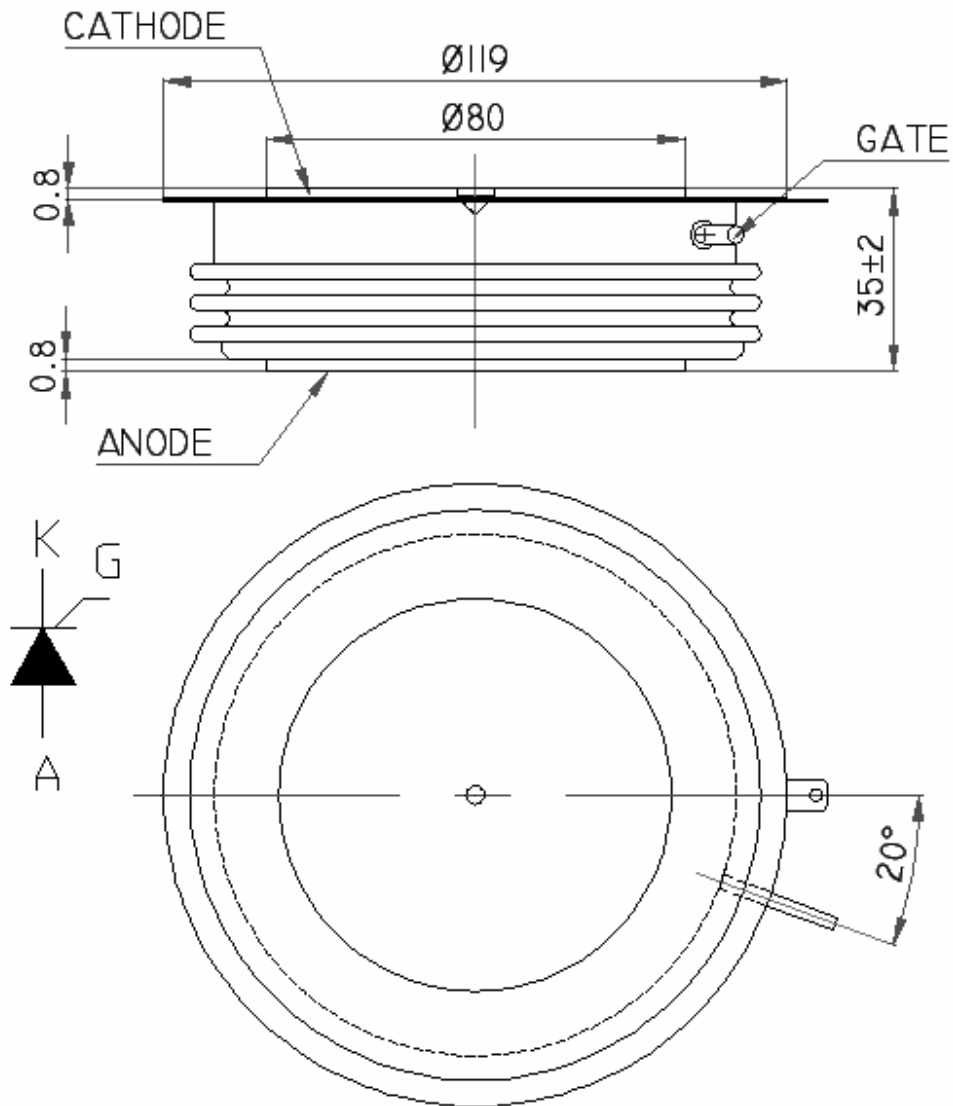
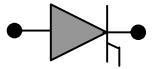
# PHASE CONTROL THYRISTOR H3200CHXX



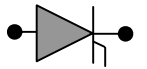
Symbol	Characteristics	Conditions	$T_J$ ( $^{\circ}\text{C}$ )	Value	Unit
<b>BLOCKING PARAMETERS</b>					
$V_{RRM}$	Repetitive peak reverse voltage		125	200-2000	V
$V_{DRM}$	Repetitive peak off-stage voltage		125	200-2000	V
$I_{RRM}$	Repetitive peak reverse current	$V = V_{RRM}$	125	200	mA
$I_{DRM}$	Repetitive peak off-state current	$V = V_{RRM}$	125	200	mA
<b>CONDUCTING PARAMETERS</b>					
$I_{F(AV)}$	Average on-state current	180 sine, 50Hz, $T_C = 68^{\circ}\text{C}$		3200	A
$I_{RMS}$	RMS on-state current			5000	A
$I_{TSM}$	Surge on-state current	Sine wave, 10mS without reverse voltage	125	50.40	kA
$I^2t$	$I^2t$			12701	$\text{kA}^2\text{S}$
$V_T$	Peak on-state voltage drop	On-state current = 3kA	125	1.30	V
$V_0$	Threshold voltage		125	0.95	V
$R_0$	On-state slope resistance		125	0.127	$\text{m}\Omega$
<b>TRIGGERING PARAMETERS</b>					
$I_{GT}$	Gate trigger current	$V_D = 5\text{V}$	25	400	mA
$V_{GT}$	Gate trigger voltage		25	3.50	V
$I_L$	Latching Current	$V_D = 5\text{V}$	25	700	mA
$P_{G-PEAK}$	Maximum Peak Gate Power	Pulse width 100 $\mu\text{Sec}$		150	W
di/dt	Repetitive rate of rise of current			200	$\text{A}/\mu\text{Sec}$
$V_{FGM}$	Maximum forward gate voltage			30	V
$I_{FGM}$	Maximum forward gate current			10	A
<b>THERMAL &amp; MECHANICAL PARAMETERS</b>					
$R_{TH(J-C)}$	Thermal impedance, 180 conduction, Sine	Junction to case		0.009	$^{\circ}\text{C}/\text{W}$
$R_{TH(C-HK)}$	Thermal impedance	Case to heatsink		0.002	$^{\circ}\text{C}/\text{W}$
$T_J$	Maximum Permissible junction temperature			125	$^{\circ}\text{C}$
$T_{STG}$	Storage temperature range			-40 - 125	$^{\circ}\text{C}$
F	Mounting Torque			45	KN
W	Weight			1700	gms



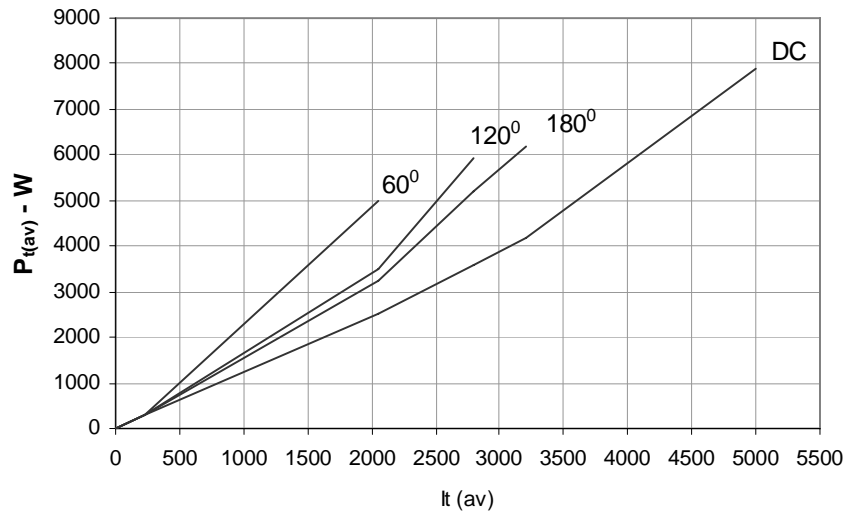
# PHASE CONTROL THYRISTOR H3200CHXX



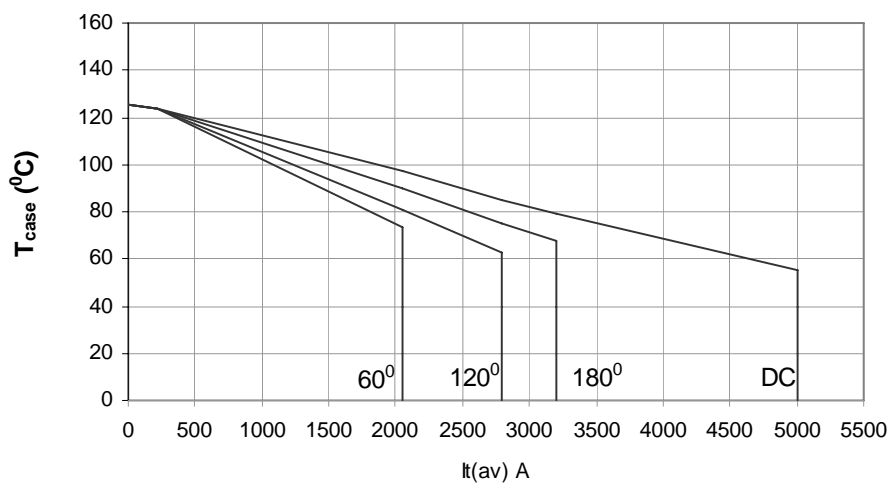
All dimensions in mm

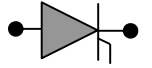


On State Power Loss

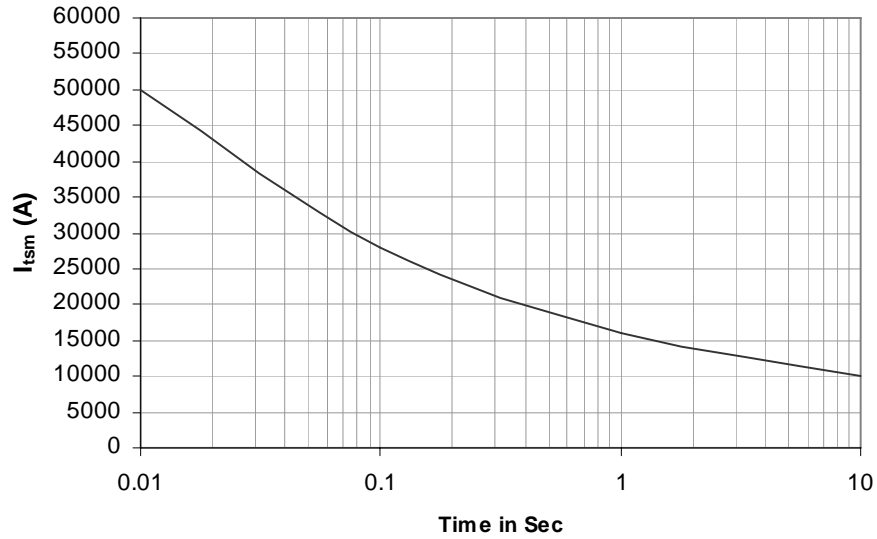


Maximum Permissible Case Temp

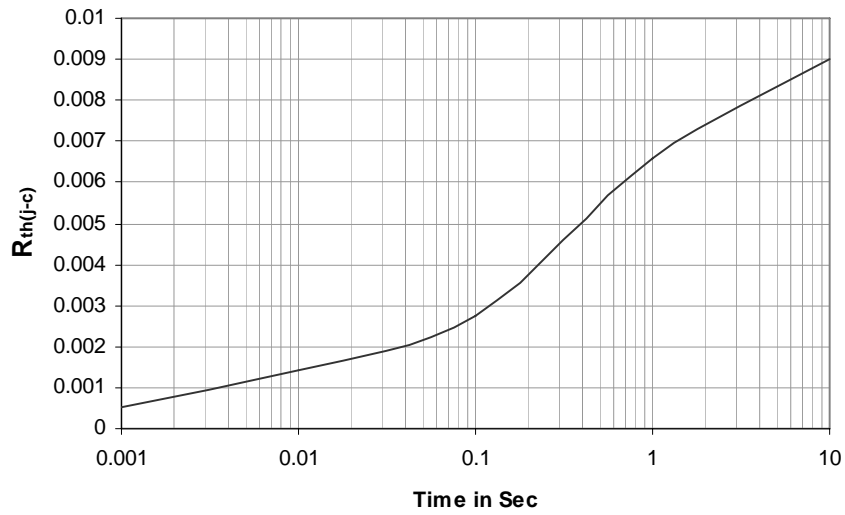


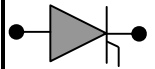


Max non repetitive Surge Current

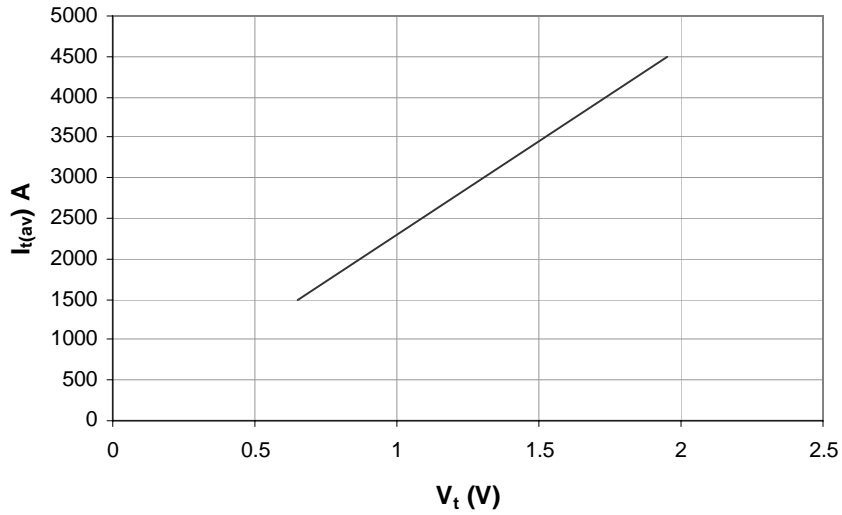


Transient Thermal Impedance Junction to Case

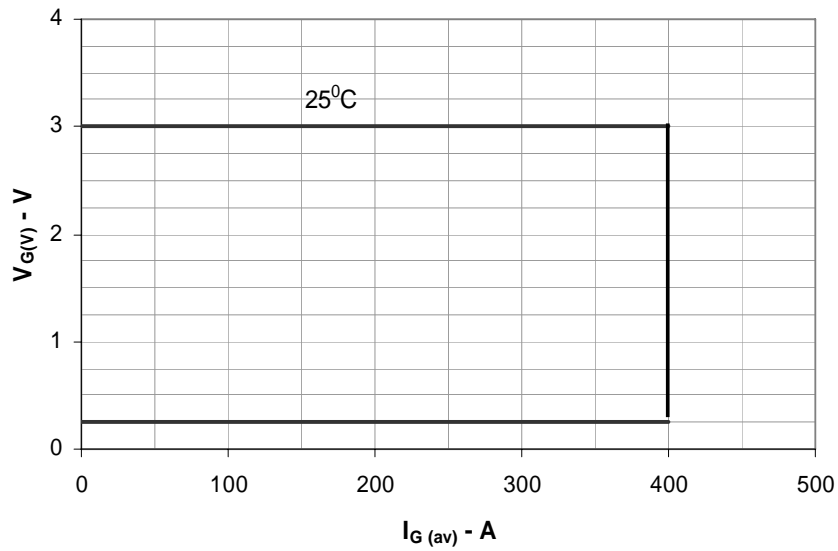




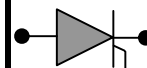
On State Characteristics



Gate Trigger Characteristics



# PHASE CONTROL THYRISTOR H3200CHXX



## Ordering Information: -

H	3200	CH	XX
Hirect make Thyristor	$I_{F(AV)} = 3200A$	Capsule Thyristor	$V_{RRM} = XX * 100$ e.g. 18 * 100 = 1800V

Hind Rectifiers Ltd reserves the right to change the specifications without notice.

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.

Hind Rectifiers Ltd  
Lake Road  
Bhandup (West)  
Mumbai – 400 078  
Tel: - +91 22 2596 8027/28/29/31  
Fax: - +91 22 2596 4114  
E-mail: - [marketing@hirect.com](mailto:marketing@hirect.com)  
Website: - [www.hirect.com](http://www.hirect.com)

June-2008



**HIND RECTIFIERS LTD**

6 of 6