

## Capsule Type Rectifier Diode SHXXC450

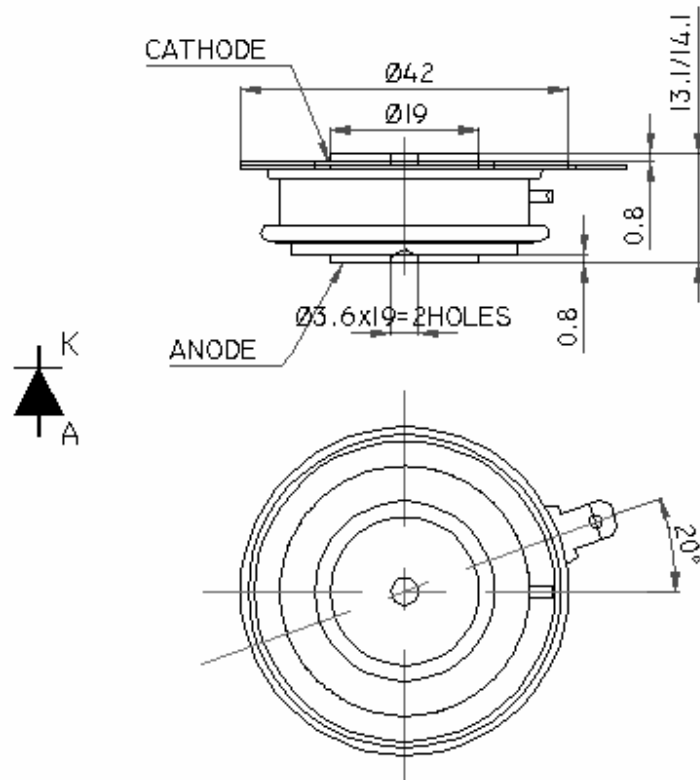
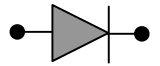


Symbol	Characteristics	Conditions	T <sub>J</sub> (°C)	Value	Unit
<b>BLOCKING PARAMETERS</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		170	200-1800	V
I <sub>RRM</sub>	Repetitive peak reverse current	V = V <sub>RRM</sub>	170	20	mA
<b>CONDUCTING PARAMETERS</b>					
I <sub>F(AV)</sub>	Average on-state current	180 sine, 50Hz, T <sub>C</sub> = 95°C		450	A
I <sub>RMS</sub>	RMS on-state current			700	A
I <sub>FSM</sub>	Non repetitive peak surge on-state current	Sine wave, 10mS without reverse voltage	170	4900	A
I <sup>2</sup> t	Permissible surge energy			120	kA <sup>2</sup> S
V <sub>FM</sub>	Peak on-state voltage drop	On-state current = 1500A	170	1.52	V
V <sub>0</sub>	Typical forward conduction Threshold voltage		170	0.70	V
r <sub>0</sub>	Typical forward slope resistance		170	0.70	mΩ
<b>THERMAL &amp; MECHANICAL PARAMETERS</b>					
R <sub>TH(J-C)</sub>	Thermal impedance, 180° conduction, Sine	Junction to case		0.112	°C/W
R <sub>TH(C-HK)</sub>	Thermal impedance	Case to heatsink		0.015	°C/W
T <sub>J</sub>	Maximum Permissible junction temperature			170	°C
T <sub>STG</sub>	Storage temperature range			-40 – 170	°C
F	Mounting Torque			6.5	KN
W	Weight			70	gms



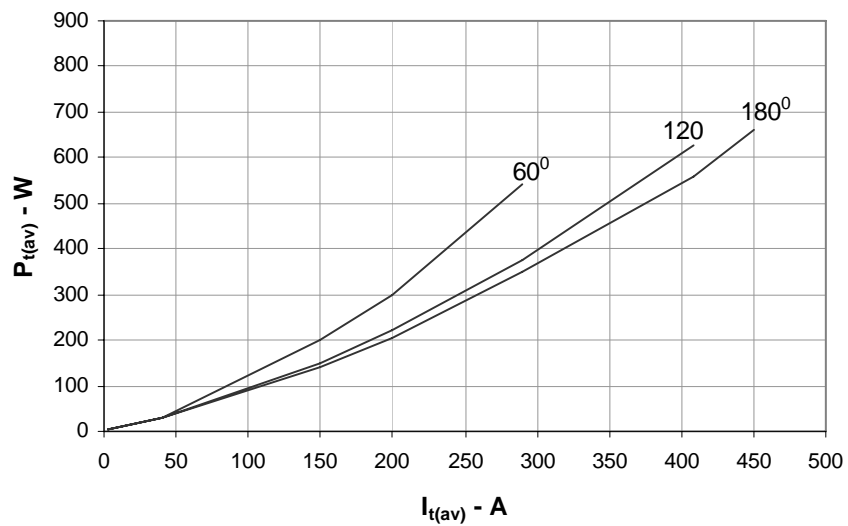
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All dimensions in mm

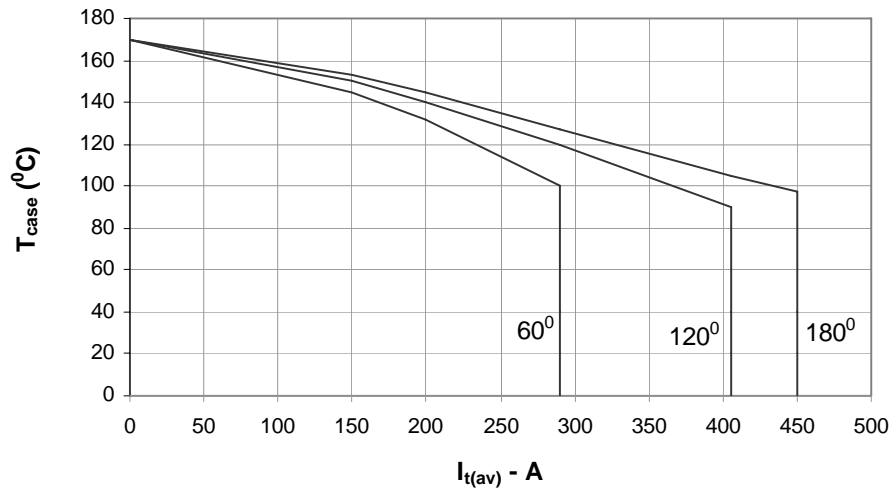
## On State Power Loss



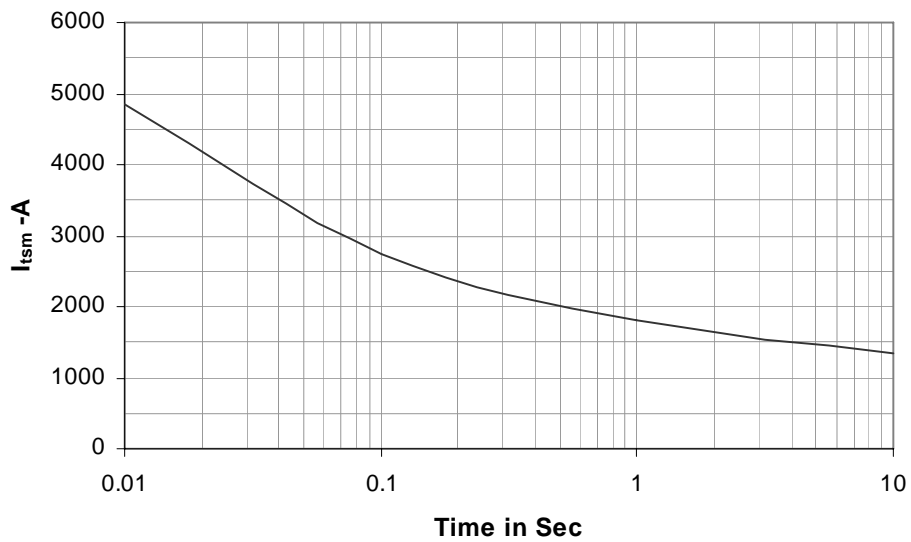
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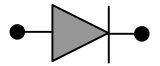


## Maximum Permissible Case Temp

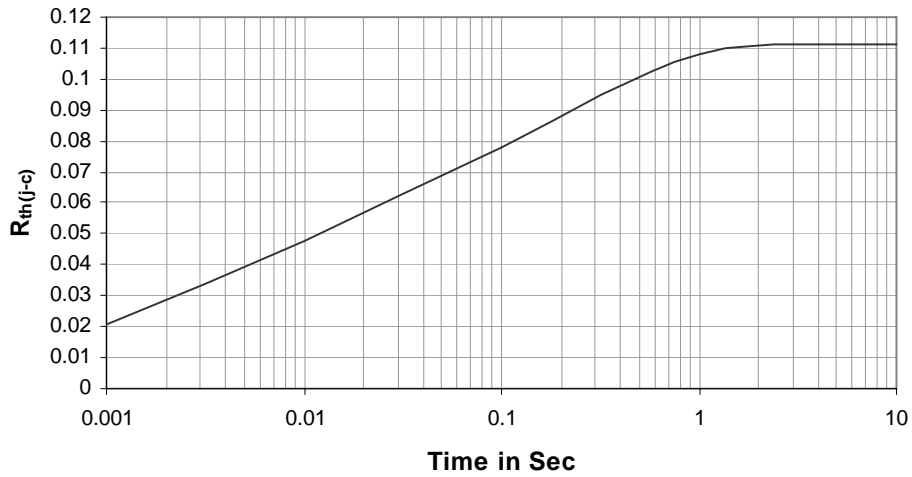


## Max non repetitive Surge Current

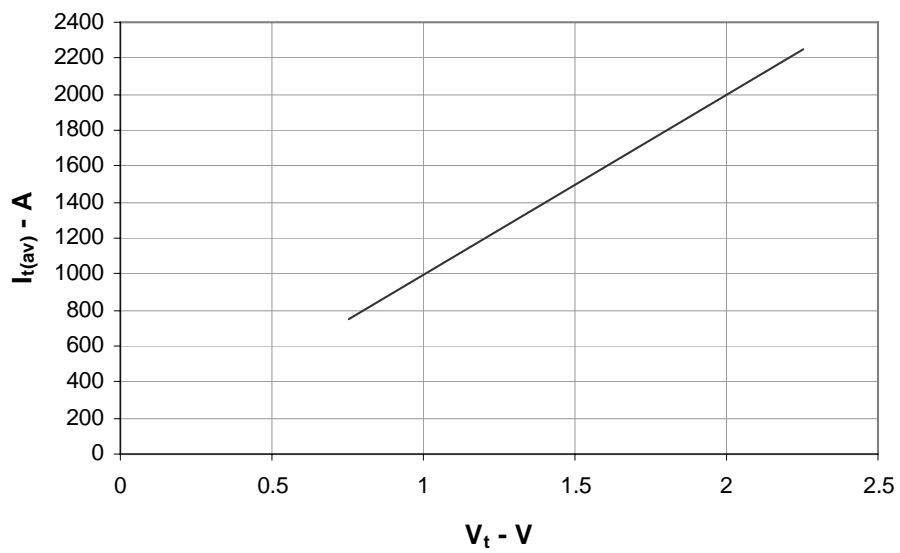




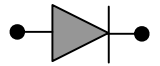
Transient Thermal Impedance Junction to Case



On State Characteristics



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### Ordering Information: -

SH	XX	C	450
Hirect make Capsule Diode	$V_{RRM} = XX * 100$ e.g. 12 * 100 = 1200V	Capsule Diode	$I_{F(AV)} = 450A$

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5 of 5