

**RECTIFIER DIODE**

# AR772H

Repetitive voltage up to	<b>4500 V</b>
Mean forward current	<b>4174 A</b>
Surge current	<b>45 kA</b>

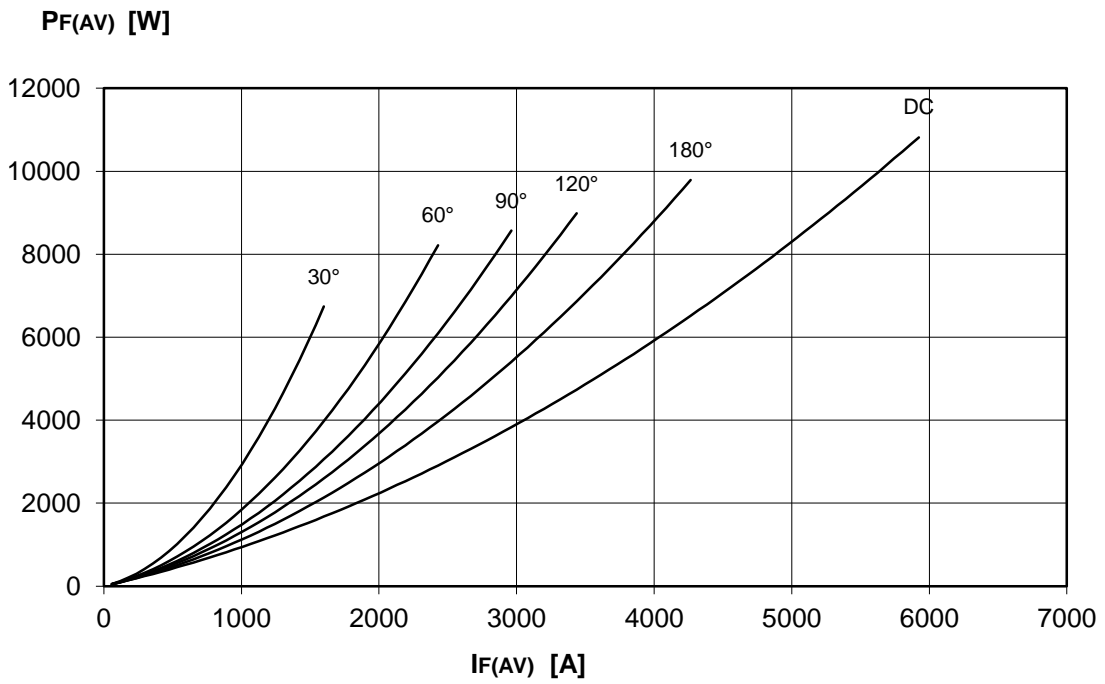
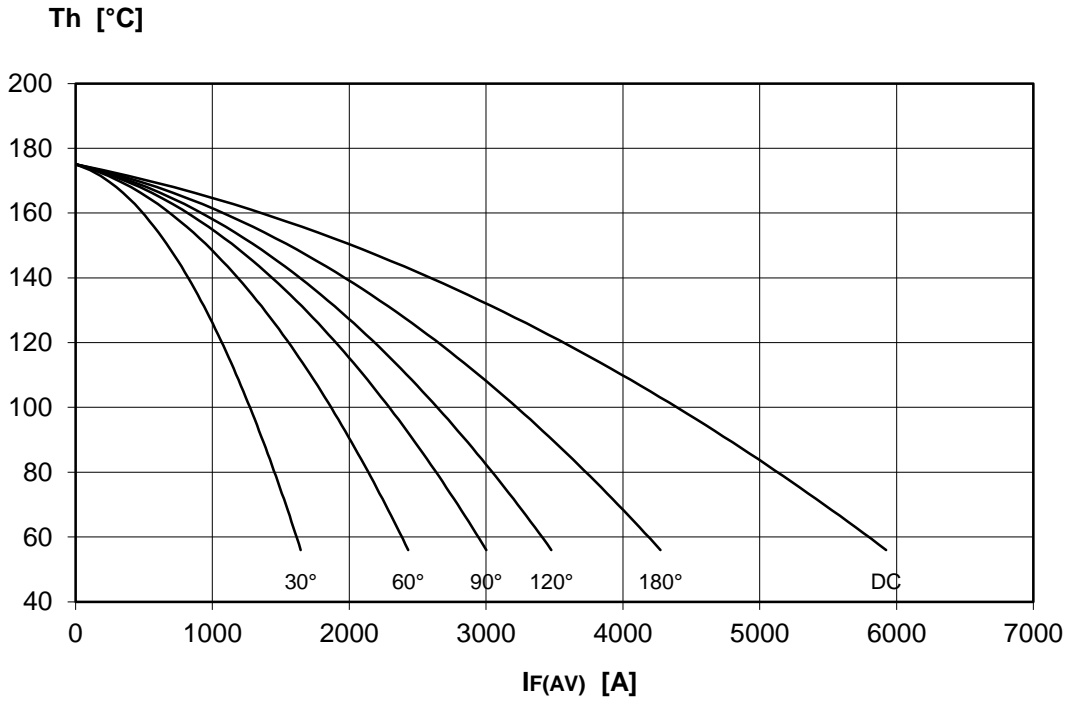
**FINAL SPECIFICATION**

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Symbol	Characteristic	Conditions	T <sub>j</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		175	4500	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		175	4600	V
I <sub>RRM</sub>	Repetitive peak reverse current	V=VRRM	175	200	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		4174	A
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Tc=85°C, double side cooled		3966	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms without reverse voltage	175	45	kA
I <sup>2</sup> t	I <sup>2</sup> t			10125 x 10 <sup>3</sup>	A <sup>2</sup> s
V <sub>FM</sub>	Forward voltage	Forward current = 3000 A	25	1,28	V
V <sub>F(TO)</sub>	Threshold voltage		175	0,76	V
r <sub>F</sub>	Forward slope resistance		175	0,180	mohm
<b>SWITCHING</b>					
t <sub>rr</sub>	Reverse recovery time	I = 1600 A, di/dt = 2 A/μs	175		μs
Q <sub>rr</sub>	Reverse recovery charge			3500	μC
I <sub>rr</sub>	Peak reverse recovery current				A
<b>MOUNTING</b>					
R <sub>th(j-h)</sub>	Thermal impedance, DC	Junction to heatsink, double side cooled		11,0	°C/kW
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, double side cooled		2,0	°C/kW
T <sub>j</sub>	Operating junction temperature			-30 / 175	°C
F	Mounting force			46.0 / 54.0	kN
	Mass			1700	g
<b>ORDERING INFORMATION : AR772H S 45</b> standard specification <input type="checkbox"/> <input type="checkbox"/> VRRM/100					

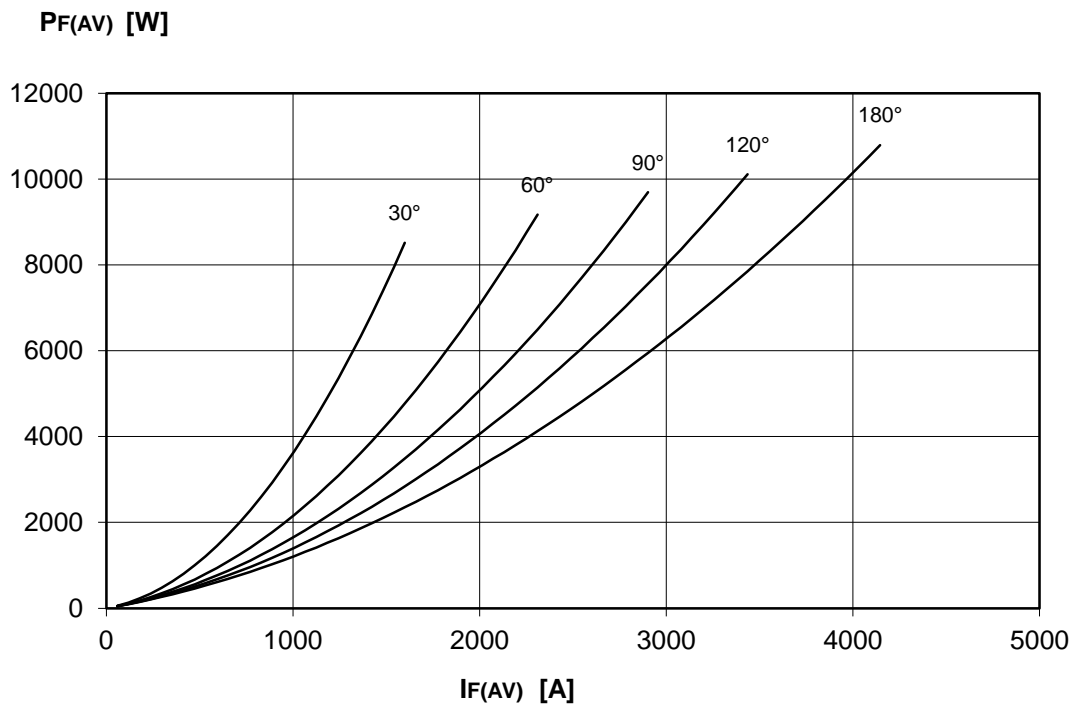
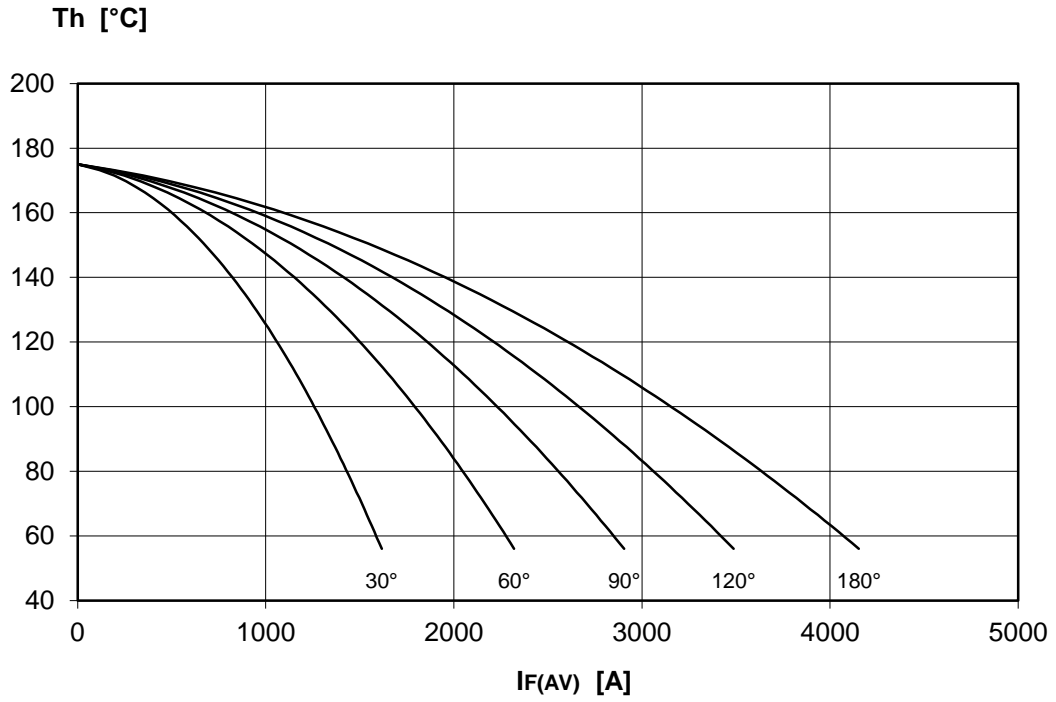
DISSIPATION CHARACTERISTICS

SQUARE WAVE



**DISSIPATION CHARACTERISTICS**

SINE WAVE

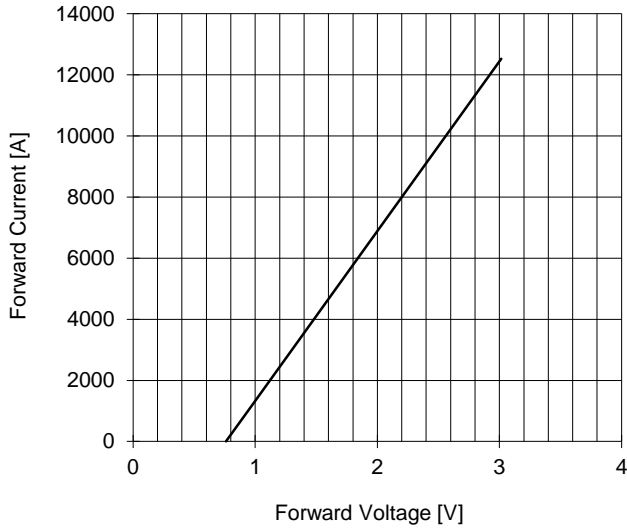


# AR772H RECTIFIER DIODE

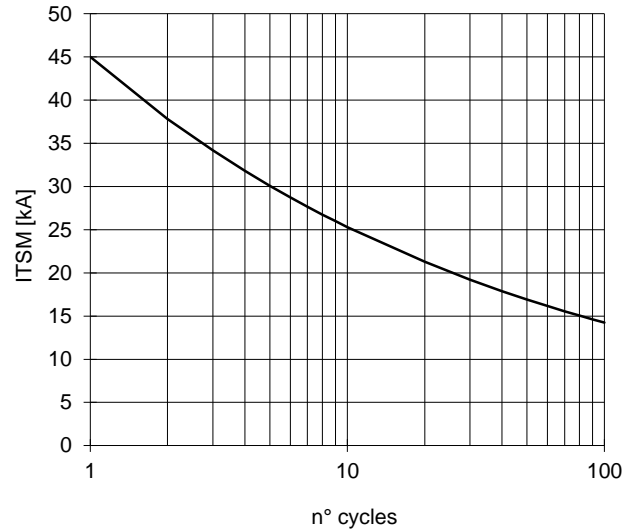


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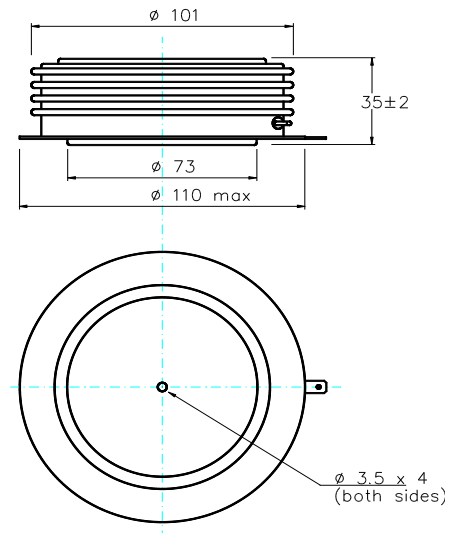
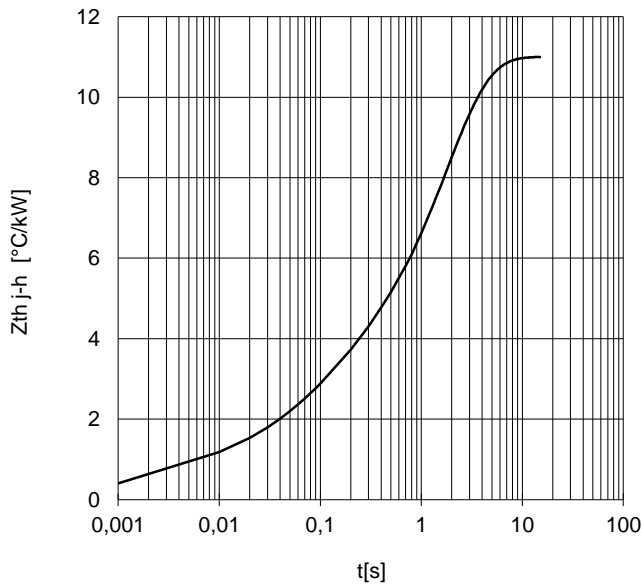
FORWARD CHARACTERISTIC  
T<sub>j</sub> = 175 °C



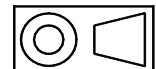
SURGE CHARACTERISTIC  
T<sub>j</sub> = 175 °C



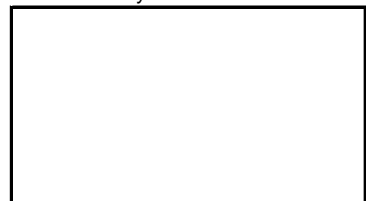
TRANSIENT THERMAL IMPEDANCE  
DOUBLE SIDE COOLED



Dimensions  
in mm



Distributed by



All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness < .03 mm and roughness < 2 μm.  
In the interest of product improvement POSEICO SpA reserves the right to change any data given in this data sheet at any time without previous notice.  
If not stated otherwise the maximum value of ratings (symbols over shaded background) and characteristics is reported.