

**RECTIFIER DIODE**

# AR302

Repetitive voltage up to	<b>800 V</b>
Mean forward current	<b>1571 A</b>
Surge current	<b>16 kA</b>

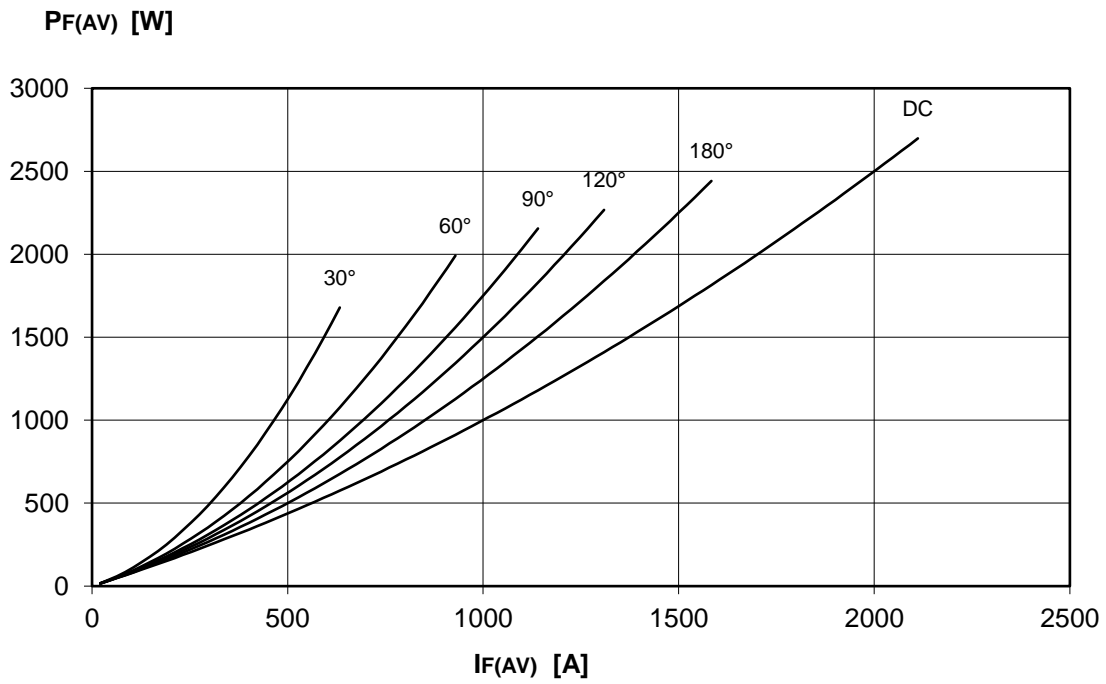
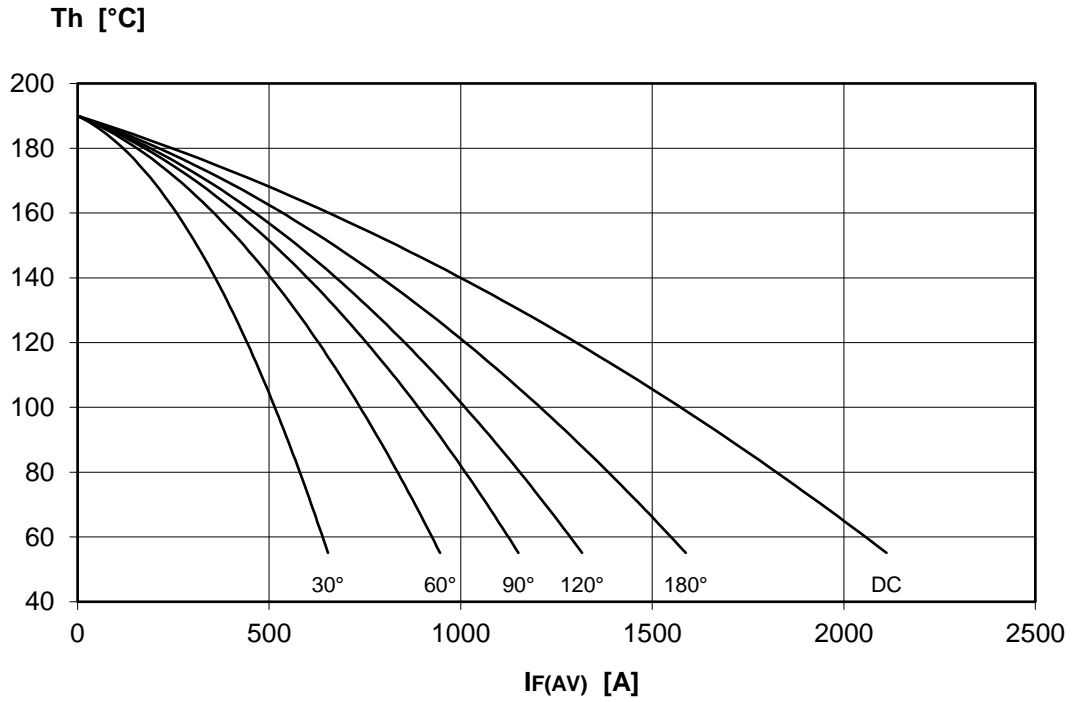
**FINAL SPECIFICATION**

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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		190	800	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		190	900	V
I <sub>RRM</sub>	Repetitive peak reverse current	V=VRRM	190	50	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		1571	A
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Tc=85°C, double side cooled		1680	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms without reverse voltage	190	16	kA
I <sup>2</sup> t	I <sup>2</sup> t			1280 x 10 <sup>3</sup>	A <sup>2</sup> s
V <sub>FM</sub>	Forward voltage	Forward current = 3000 A	25	1,55	V
V <sub>F(TO)</sub>	Threshold voltage		190	0,75	V
r <sub>F</sub>	Forward slope resistance		190	0,250	mohm
<b>SWITCHING</b>					
t <sub>rr</sub>	Reverse recovery time		190		μs
Q <sub>rr</sub>	Reverse recovery charge				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		50,0	°C/kW
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, double side cooled		15,0	°C/kW
T <sub>j</sub>	Operating junction temperature			-30 / 190	°C
F	Mounting force			8.0 / 9.0	kN
	Mass			85	g
<b>ORDERING INFORMATION : AR302 S 08</b>					
standard specification <input type="checkbox"/> <input type="checkbox"/> VRRM/100					

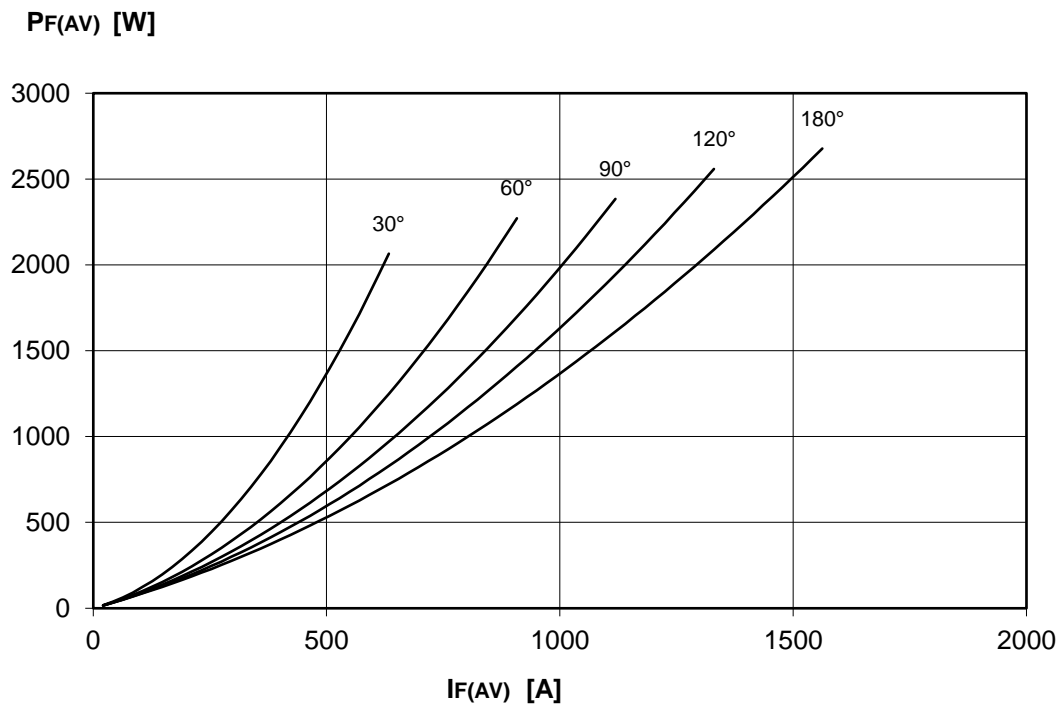
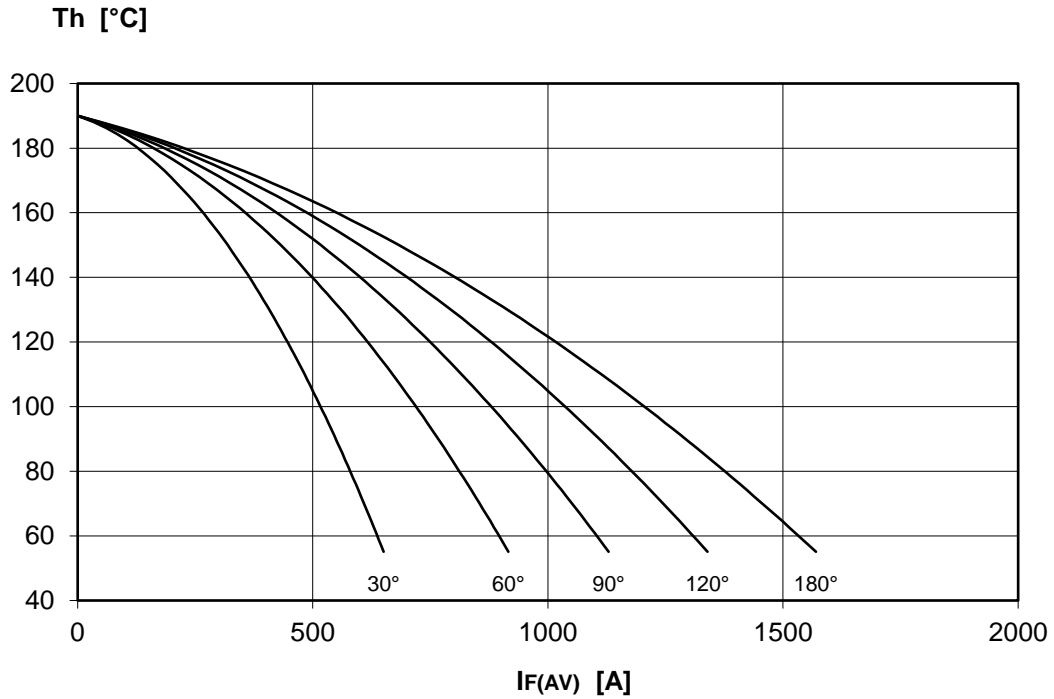
**DISSIPATION CHARACTERISTICS**

SQUARE WAVE



DISSIPATION CHARACTERISTICS

SINE WAVE

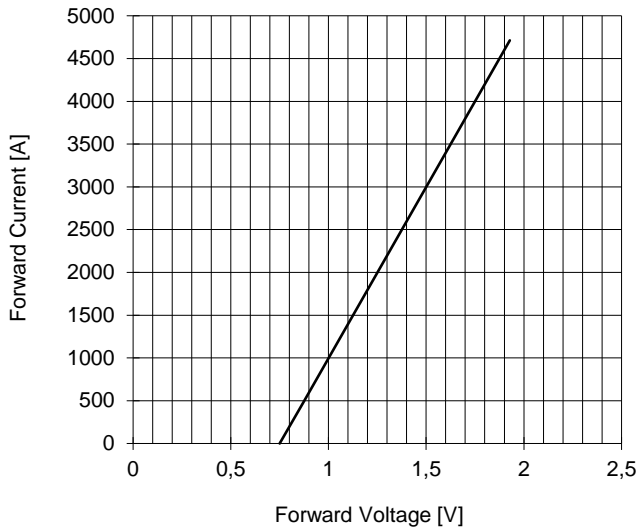


# AR302 RECTIFIER DIODE

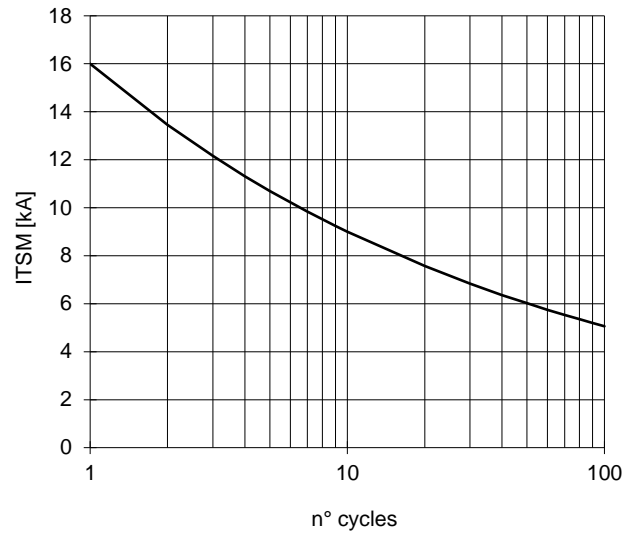


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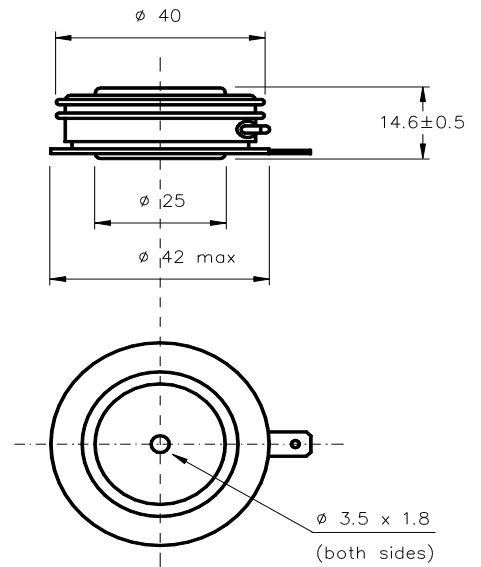
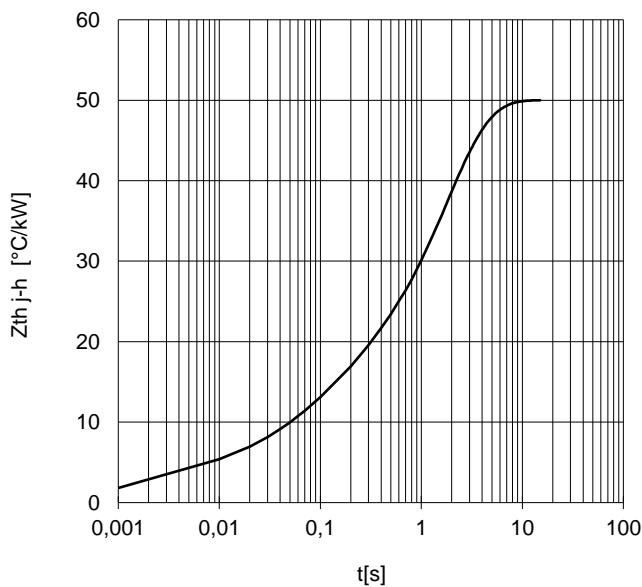
FORWARD CHARACTERISTIC  
T<sub>j</sub> = 190 °C



SURGE CHARACTERISTIC  
T<sub>j</sub> = 190 °C



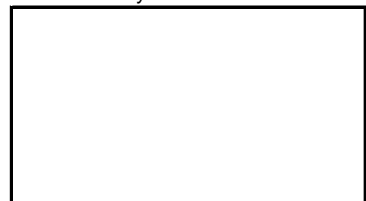
TRANSIENT THERMAL IMPEDANCE  
DOUBLE SIDE COOLED



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.