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Power SEMiconductors Italian COrporation

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**RECTIFIER DIODE**

**AR372**

Repetitive voltage up to **3200 V**  
Mean forward current **705 A**  
Surge current **6 kA**

**TARGET SPECIFICATION**

Iug 02 - ISSUE : 0

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		150	3200	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		150	3300	V
I <sub>RRM</sub>	Repetitive peak reverse current	V=VRRM	150	50	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		705	A
I <sub>F(AV)</sub>	Mean forward current	180° sin ,50 Hz, Tc=85°C, double side cooled		695	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms without reverse voltage	150	5.6	kA
I <sup>2</sup> t	I <sup>2</sup> t			157 x 1E3	A <sup>2</sup> s
V <sub>FM</sub>	Forward voltage	Forward current = 2000 A	25	2.84	V
V <sub>F(TO)</sub>	Threshold voltage		150	1.00	V
r <sub>F</sub>	Forward slope resistance		150	0.920	mohm
<b>SWITCHING</b>					
t <sub>rr</sub>	Reverse recovery time	I= 1600 A			µs
Q <sub>rr</sub>	Reverse recovery charge	di/dt= 2A/µs	150		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	°C/kW
T <sub>j</sub>	Operating junction temperature			-30 / 150	°C
F	Mounting force			8.0 / 9.0	kN
	Mass			85	g

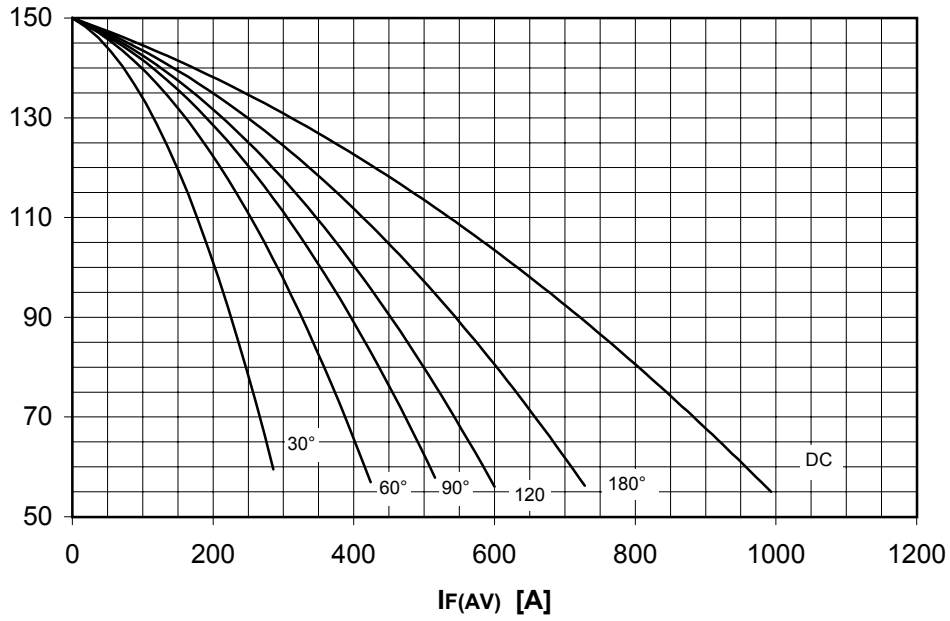
**ORDERING INFORMATION : AR372 S 32**

standard specification   VRRM/100

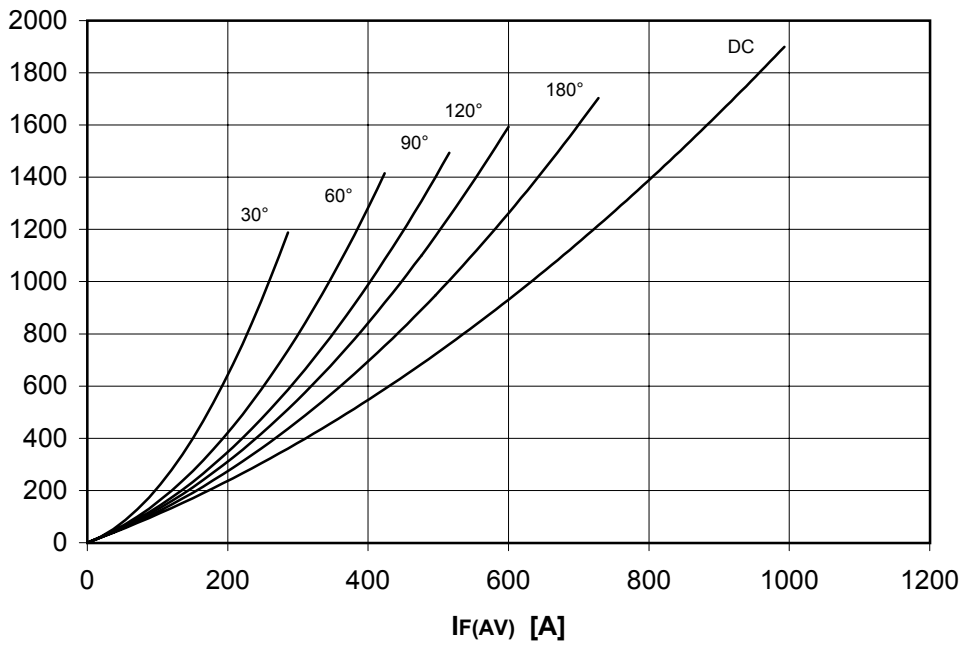
## DISSIPATION CHARACTERISTICS

SQUARE WAVE

Th [°C]



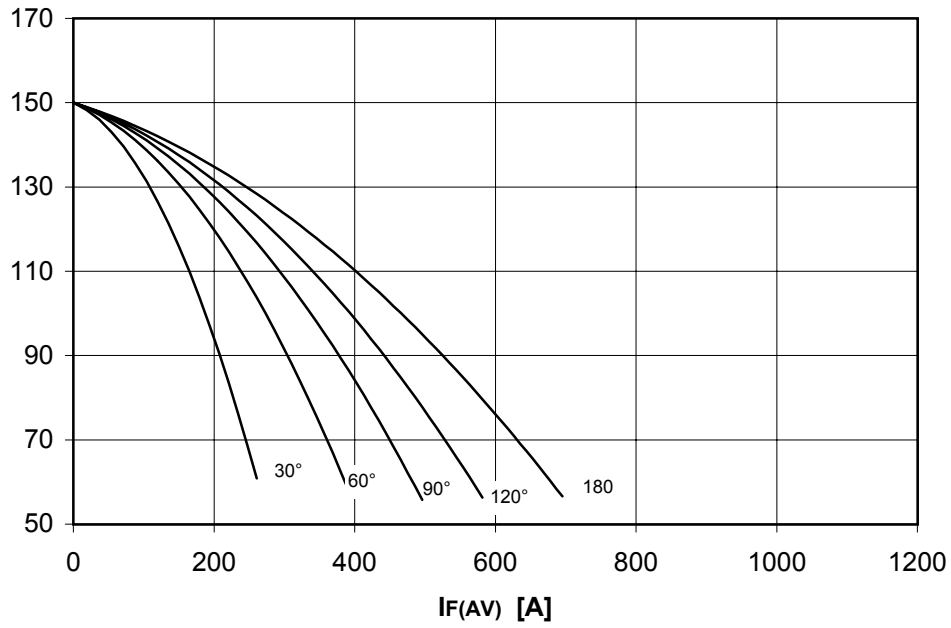
PF(AV) [W]



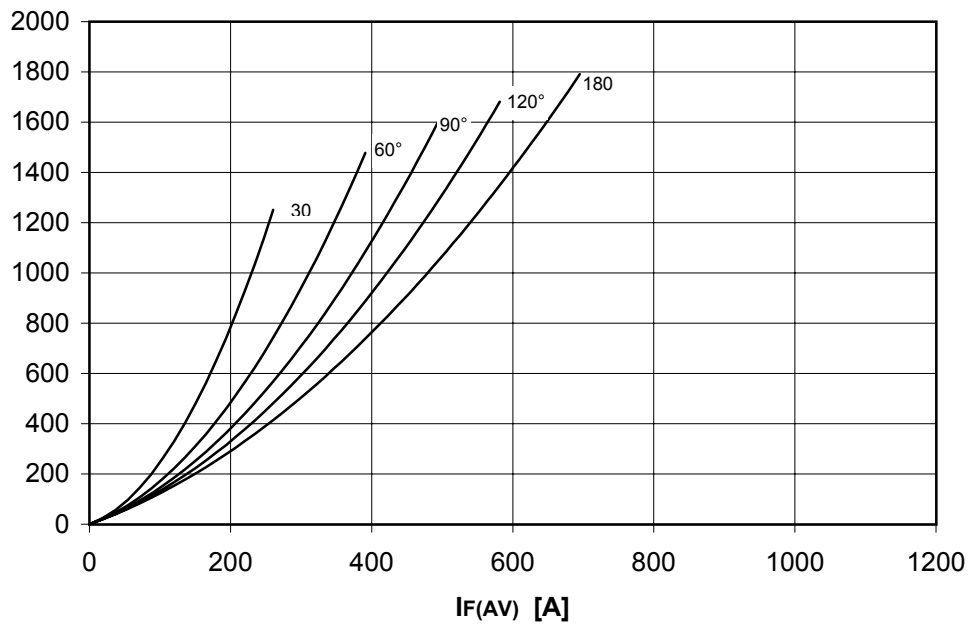
## DISSIPATION CHARACTERISTICS

SINE WAVE

Th [°C]



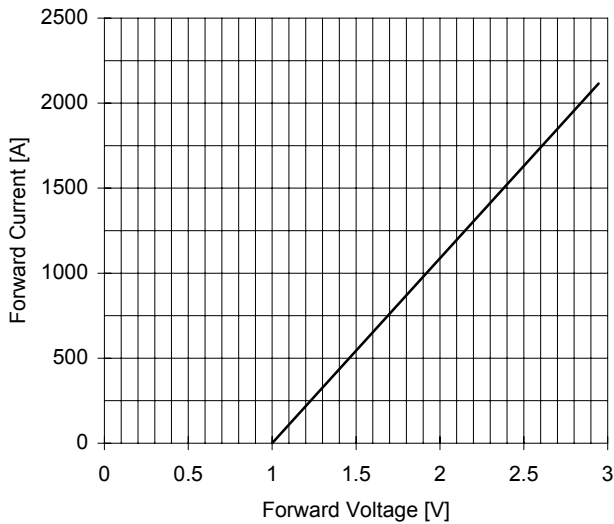
PF(AV) [W]



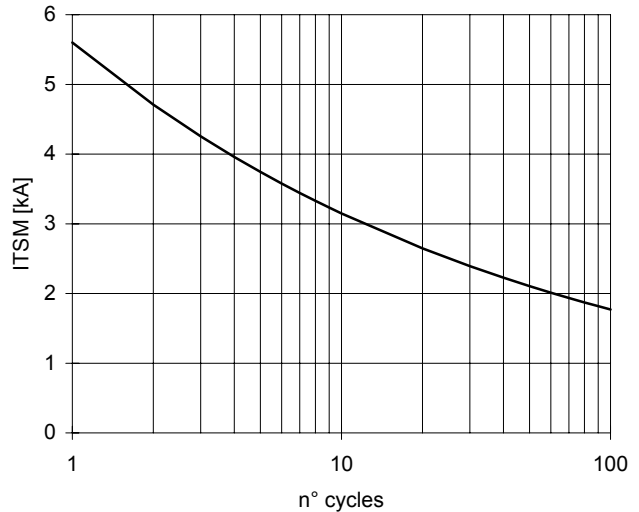
# AR372 RECTIFIER DIODE

TARGET SPECIFICATION lug 02 - ISSUE : 0

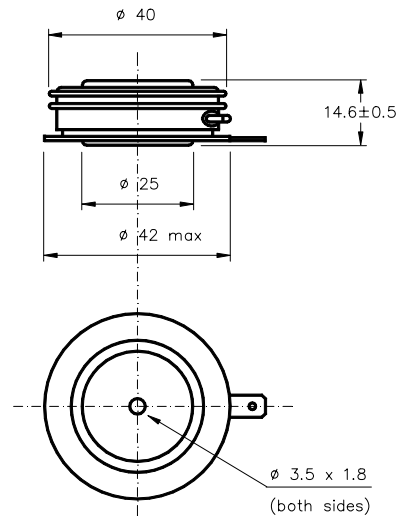
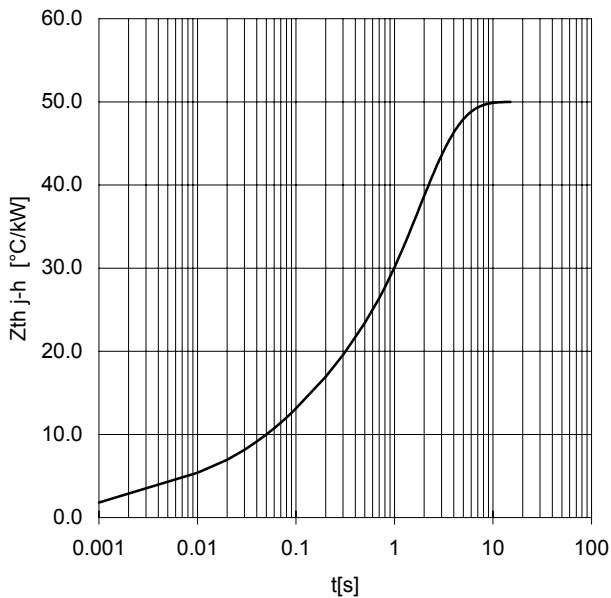
FORWARD CHARACTERISTIC  
 $T_j = 150\text{ }^\circ\text{C}$



SURGE CHARACTERISTIC  
 $T_j = 150\text{ }^\circ\text{C}$



TRANSIENT THERMAL IMPEDANCE  
DOUBLE SIDE COOLED



Dimensions  
in mm



All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness <math>< .03\text{ mm}</math> and roughness <math>< 2\text{ }\mu\text{m}</math>.

In the interest of product improvement POSEICO 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.

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