



POSEICO SPA
Power SEmiconductors Italian COrporation

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RECTIFIER DIODE

AR508LT

Repetitive voltage up to **600 V**
Mean forward current **6000 A**
Surge current **55 kA**

TARGET SPECIFICATION

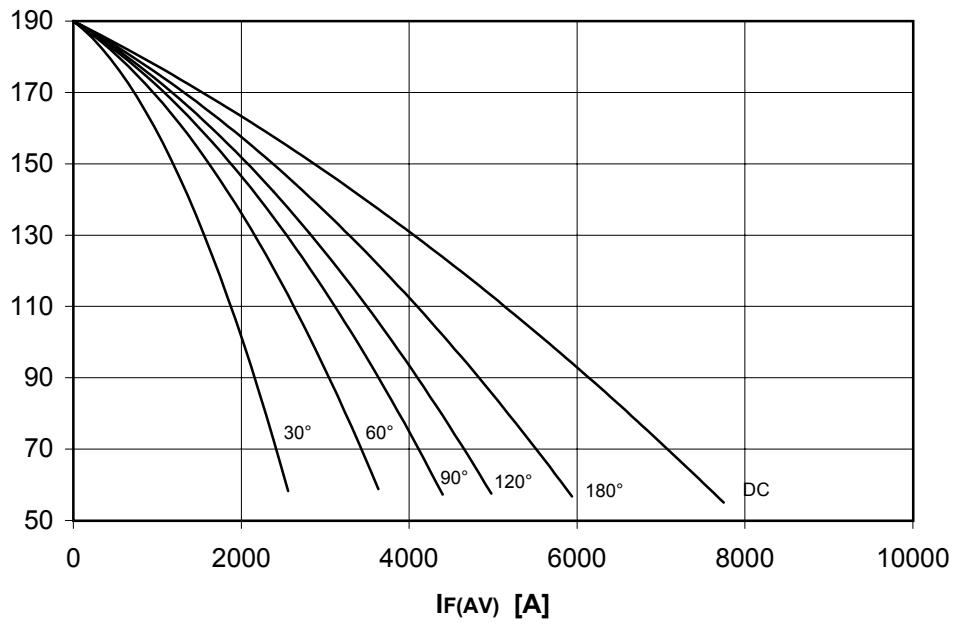
Iug 02 - ISSUE : 4

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		190	600	V
V _{RSM}	Non-repetitive peak reverse voltage		190	700	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	190	75	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		6000	A
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, Tc=85°C, double side cooled		6400	A
I _{FSM}	Surge forward current	Sine wave, 10 ms without reverse voltage	190	55	kA
I ² t	I ² t			15125 x 1E3	A ² s
V _{FM}	Forward voltage	Forward current = 4500 A	190	0.88	V
V _{F(TO)}	Threshold voltage		190	0.70	V
r _F	Forward slope resistance		190	0.040	mohm
SWITCHING					
t _{rr}	Reverse recovery time		190		μs
Q _{rr}	Reverse recovery charge				μC
I _{rr}	Peak reverse recovery current				A
MOUNTING					
R _{th(j-h)}	Thermal impedance, DC	Junction to heatsink, double side cooled		17	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		5	°C/kW
T _j	Operating junction temperature			-30 / 190	°C
F	Mounting force			20.0 / 22.0	kN
	Mass			150	g
<p>ORDERING INFORMATION : AR508LT S 06</p> <p>standard specification <input type="checkbox"/> VRRM/100 <input type="checkbox"/></p>					

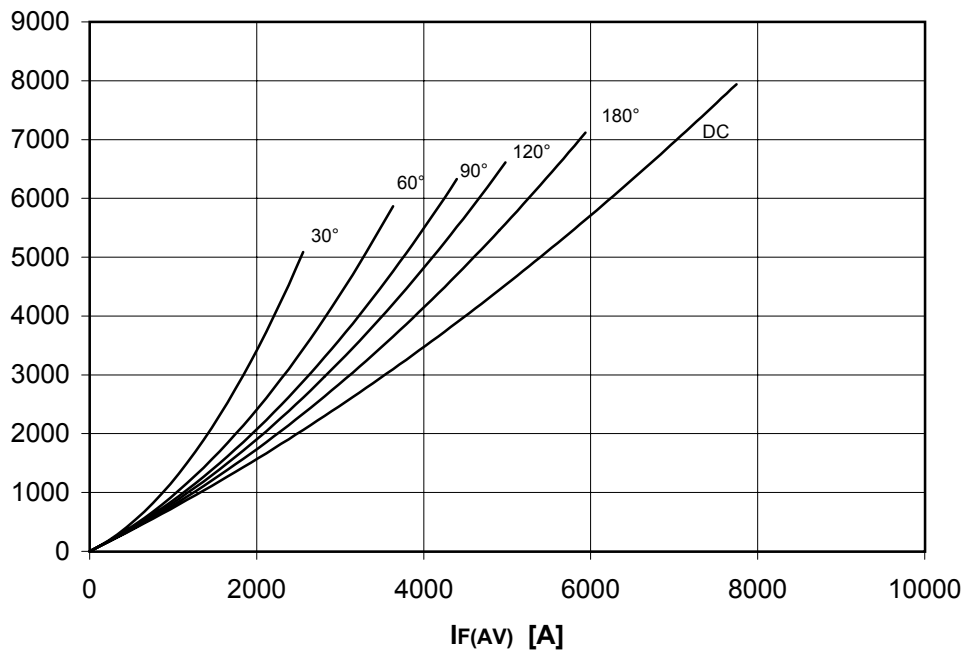
DISSIPATION CHARACTERISTICS

SQUARE WAVE

Th [°C]



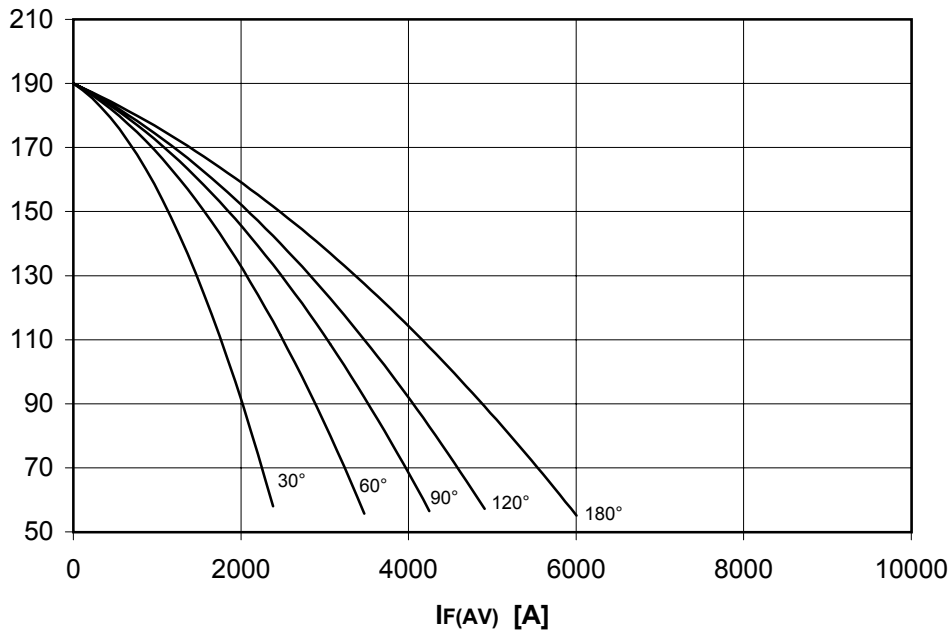
PF(AV) [W]



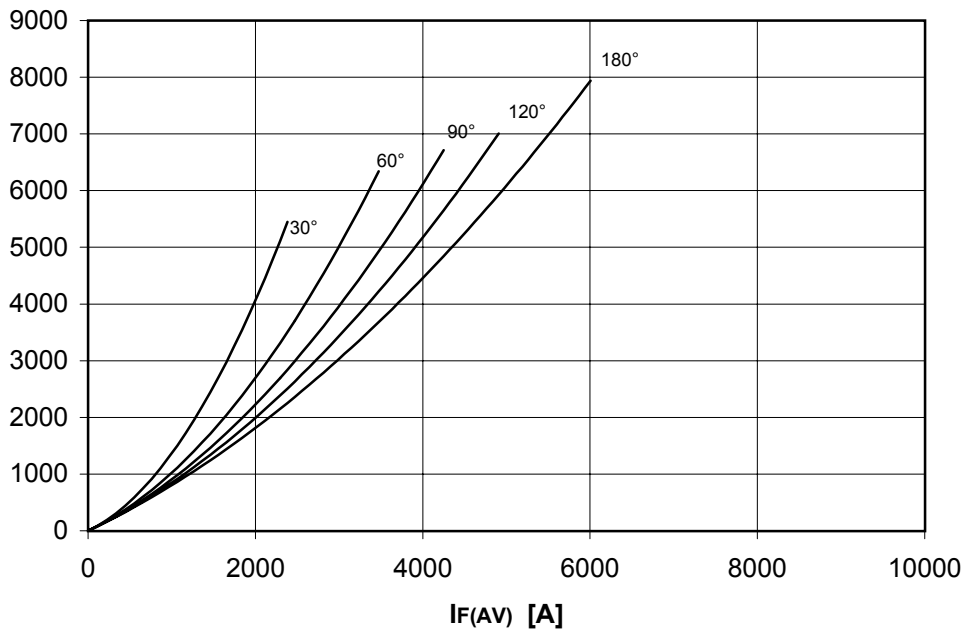
DISSIPATION CHARACTERISTICS

SINE WAVE

Th [°C]



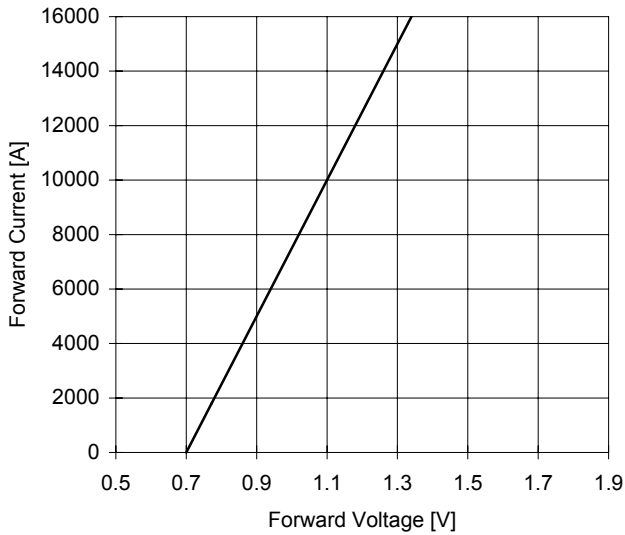
PF(AV) [W]



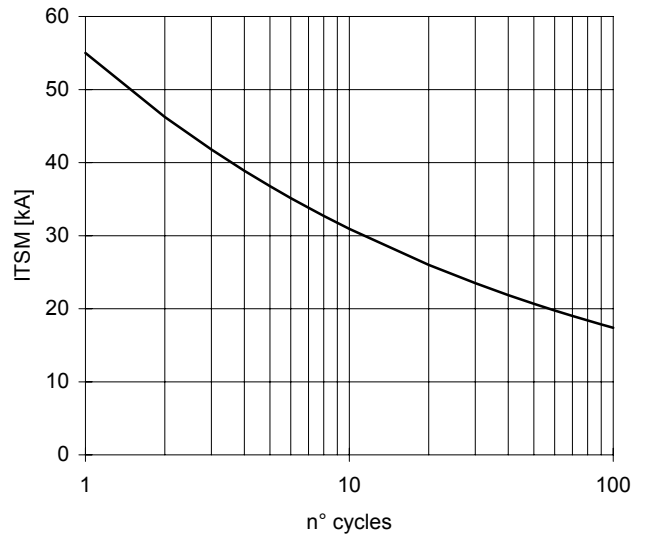
AR508LT RECTIFIER DIODE

TARGET SPECIFICATION Iug 02 - ISSUE : 4

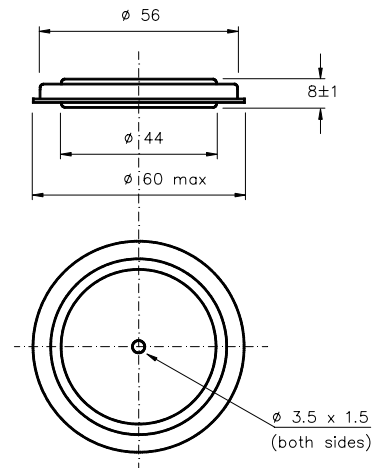
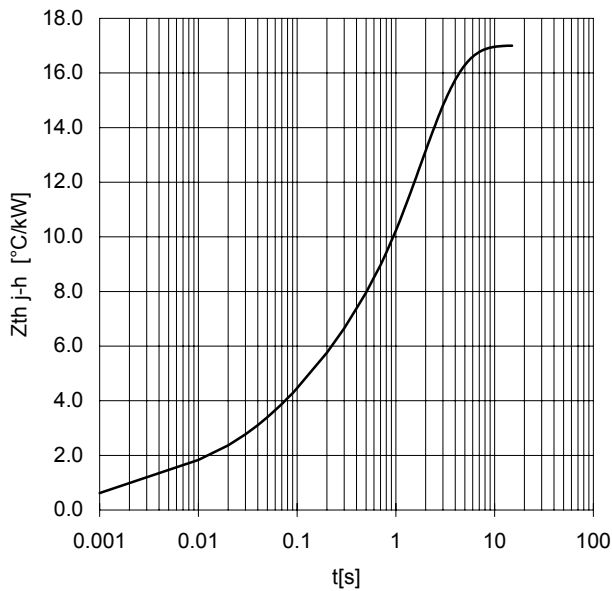
FORWARD CHARACTERISTIC
 $T_j = 190\text{ }^\circ\text{C}$



SURGE CHARACTERISTIC
 $T_j = 190\text{ }^\circ\text{C}$



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 $< .03\text{ mm}$ and roughness $< 2\text{ }\mu\text{m}$.
 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.

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