

RECTIFIER DIODE

AR690


Repetitive voltage up to **6000 V**
Mean forward current **2437 A**
Surge current **18. kA**

FINAL SPECIFICATION

May 09 - Issue: 00

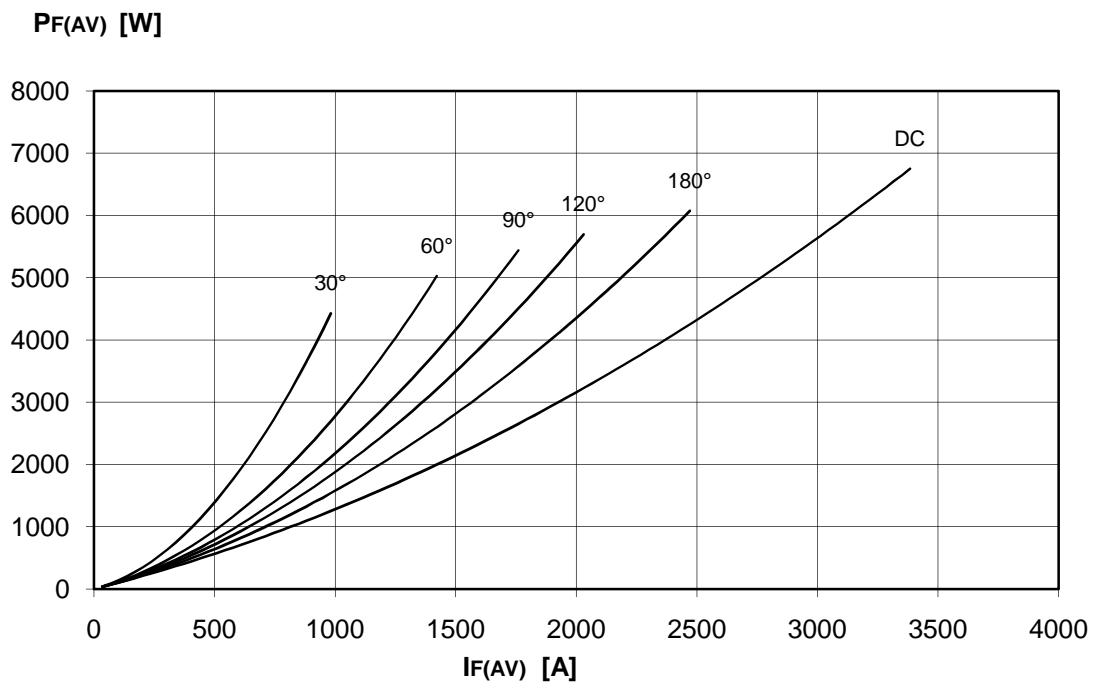
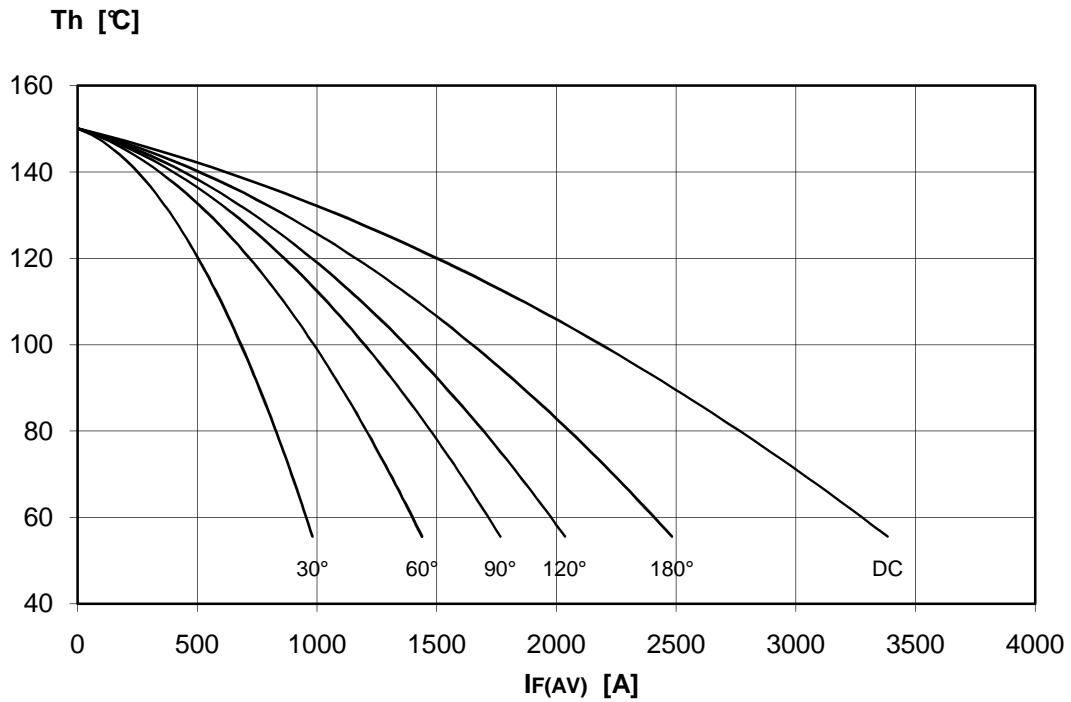
Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	6000	V
V _{RSM}	Non-repetitive peak reverse voltage		150	6100	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	150	130	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		2437	A
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, Tc=85°C, double side cooled		2240	A
I _{FSM}	Surge forward current	Sine wave, 10 ms without reverse voltage	150	18	kA
I ² t	I ² t			1620 x 10 ³	A ² s
V _{FM}	Forward voltage	Forward current = 2500 A	150	1.73	V
V _{F(TO)}	Threshold voltage		150	0.98	V
r _F	Forward slope resistance		150	0.300	mohm
SWITCHING					
t _{rr}	Reverse recovery time		150		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		14	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		3	°C/kW
T _j	Operating junction temperature			-30 / 150	°C
F	Mounting force			35.0 / 40.0	kN
	Mass			850	g

ORDERING INFORMATION : AR690 S 60

standard specification  VRRM/100

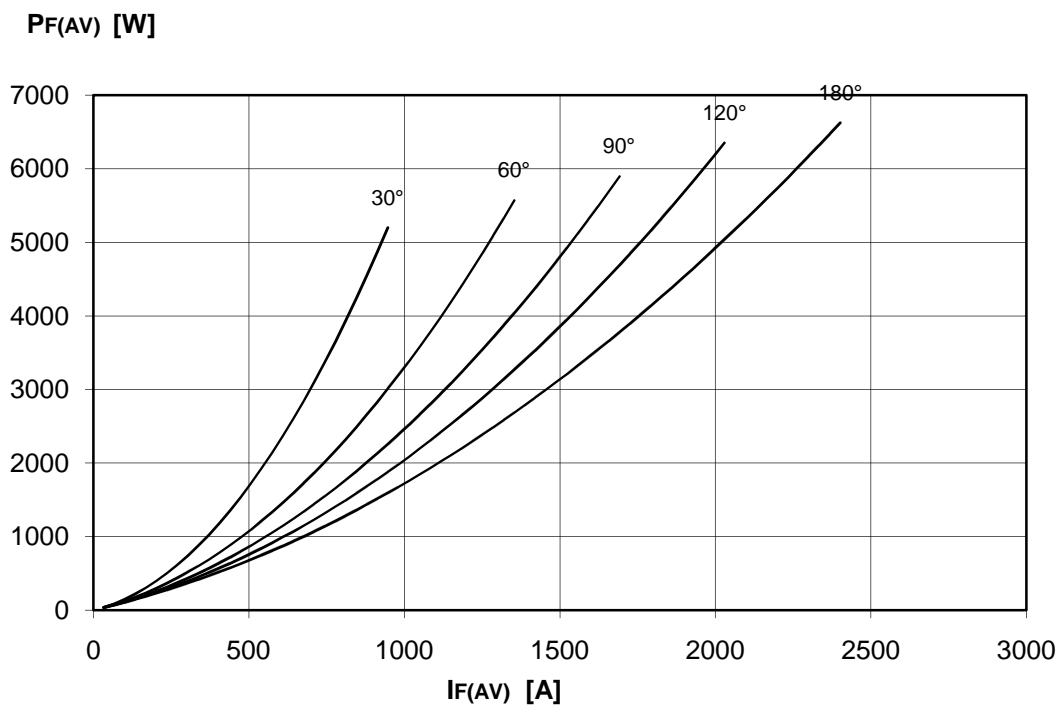
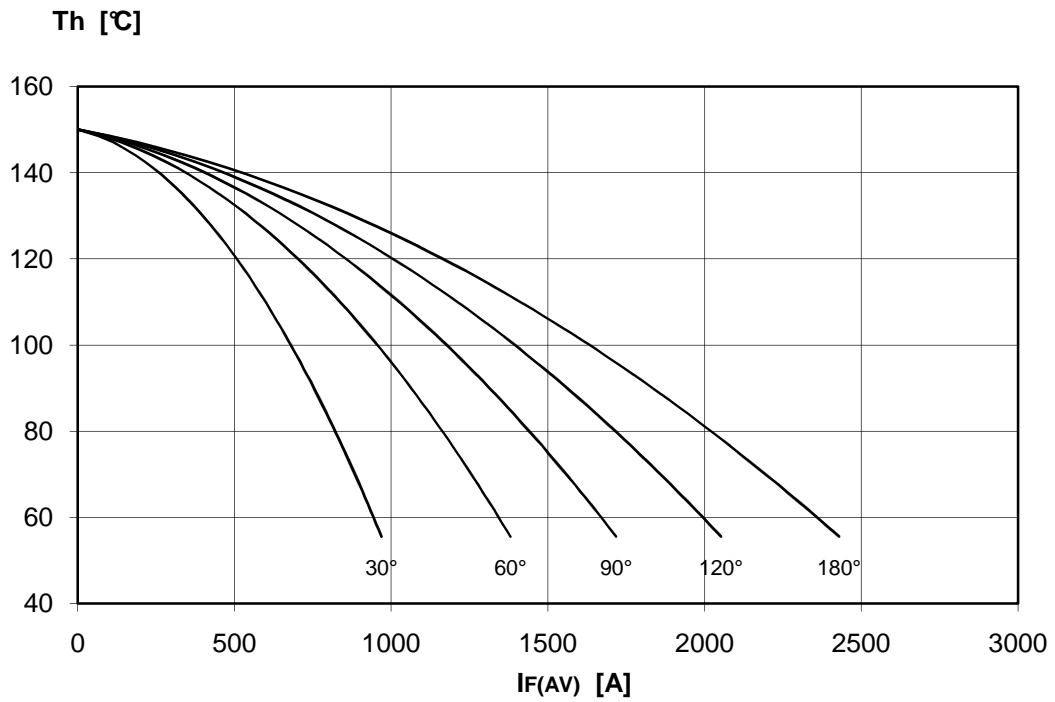
DISSIPATION CHARACTERISTICS

SQUARE WAVE



DISSIPATION CHARACTERISTICS

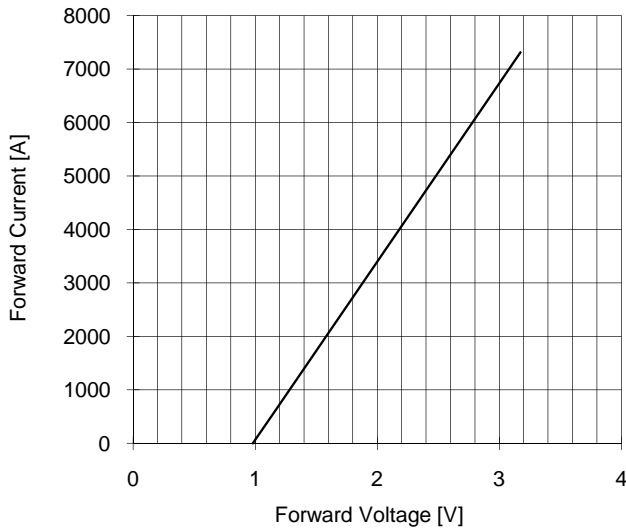
SINE WAVE



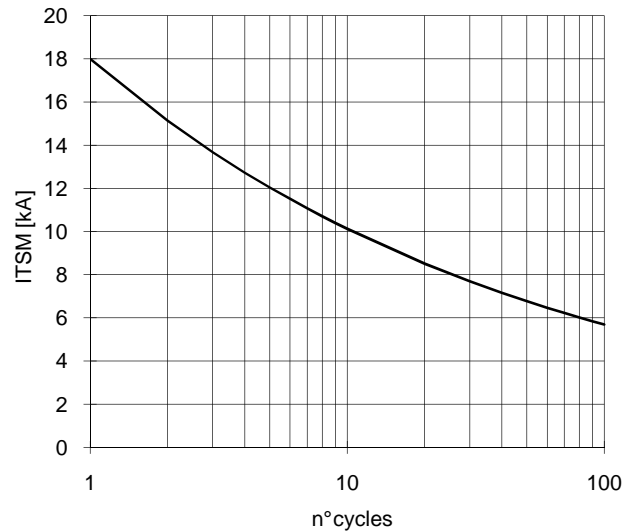
AR690 RECTIFIER DIODE

FINAL SPECIFICATION May 09 - Issue: 00

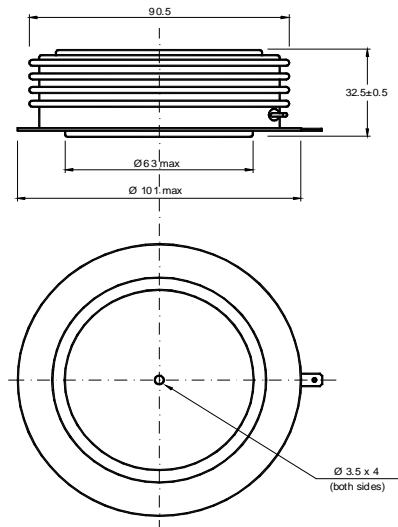
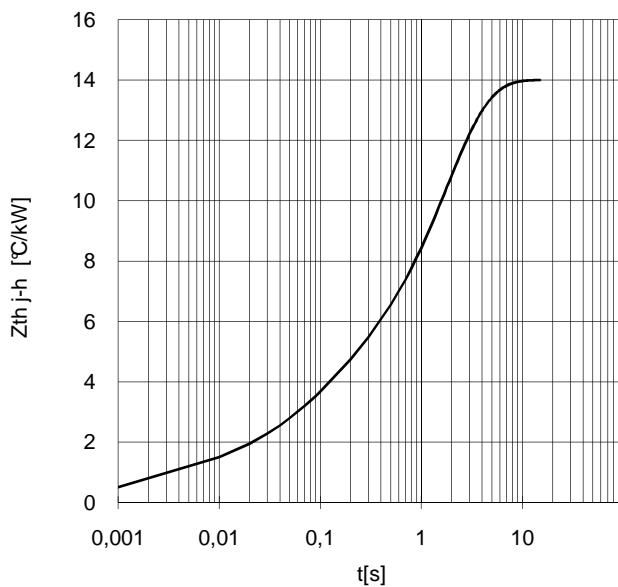
FORWARD CHARACTERISTIC
 $T_j = 150\text{ }^\circ\text{C}$



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 < .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.

Distributed by

