

RECTIFIER DIODE

AR770

Repetitive voltage up to	4500 V
Mean forward current	3869 A
Surge current	50 kA

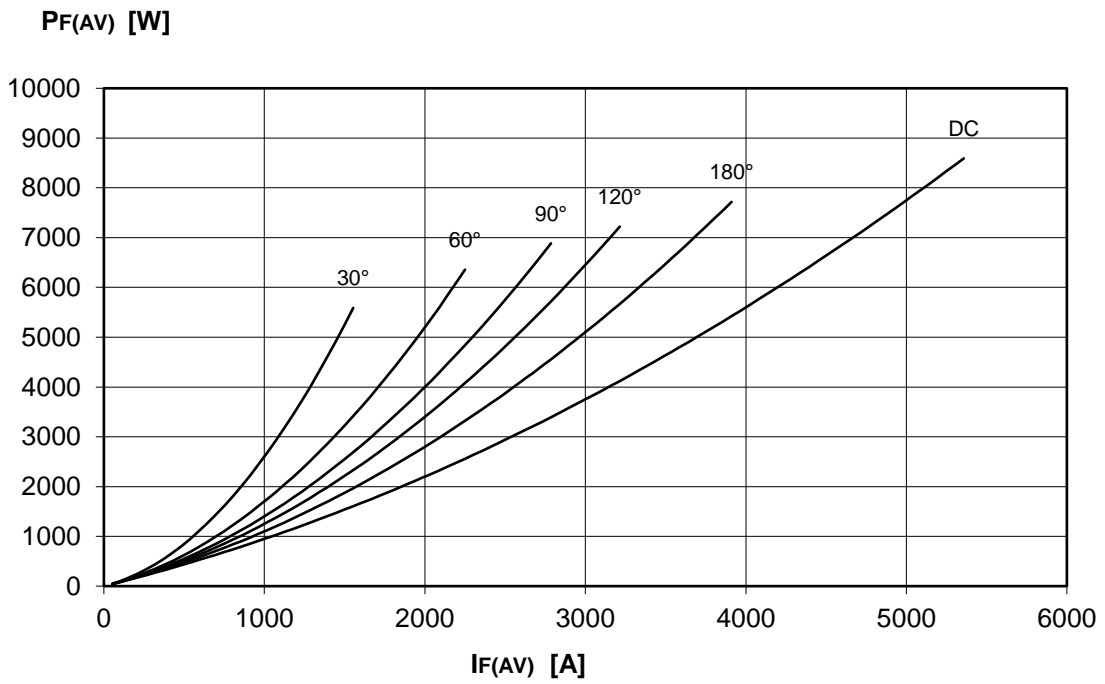
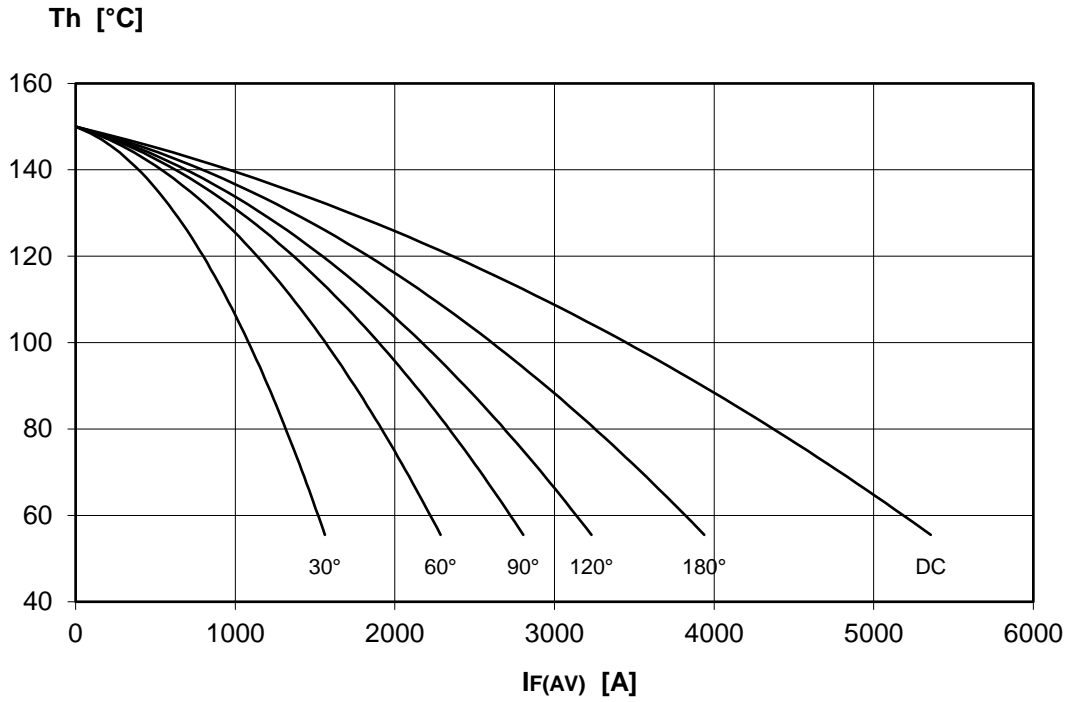
FINAL SPECIFICATION

Mar. 17 - Issue: 4

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	4500	V
V _{RSM}	Non-repetitive peak reverse voltage		150	4600	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	150	200	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		3869	A
I _{F(AV)}	Mean forward current	180° sin, 50 Hz, Tc=85°C, double side cooled		3467	A
I _{FSM}	Surge forward current	Sine wave, 10 ms without reverse voltage	150	50	kA
I ² t	I ² t			12500 x 10 ³	A ² s
V _{FM}	Forward voltage	Forward current = 3000 A	25	1,28	V
V _{F(TO)}	Threshold voltage		150	0,80	V
r _F	Forward slope resistance		150	0,150	mohm
SWITCHING					
t _{rr}	Reverse recovery time	I = 1600 A, di/dt = 2 A/μs	150		μs
Q _{rr}	Reverse recovery charge			3500	μC
I _{rr}	Peak reverse recovery current				A
MOUNTING					
R _{th(j-h)}	Thermal impedance, DC	Junction to heatsink, double side cooled		11,0	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		2,0	°C/kW
T _j	Operating junction temperature			-30 / 150	°C
F	Mounting force			46.0 / 54.0	kN
	Mass			1700	g
ORDERING INFORMATION : AR770 S 45 standard specification <input type="checkbox"/> <input type="checkbox"/> VRRM/100					

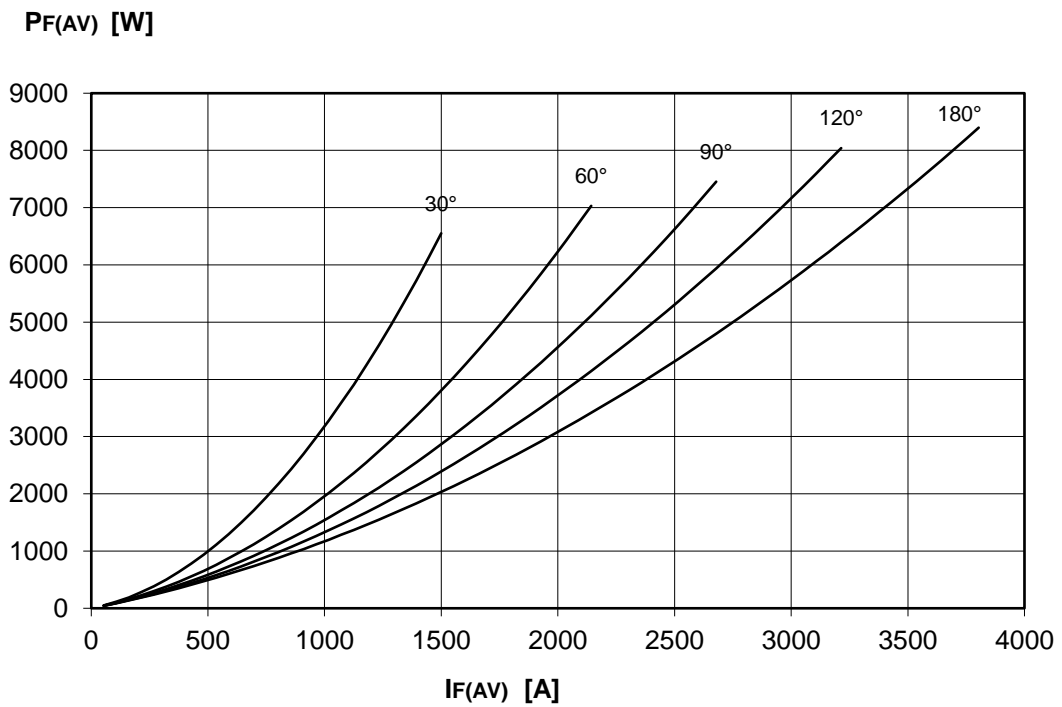
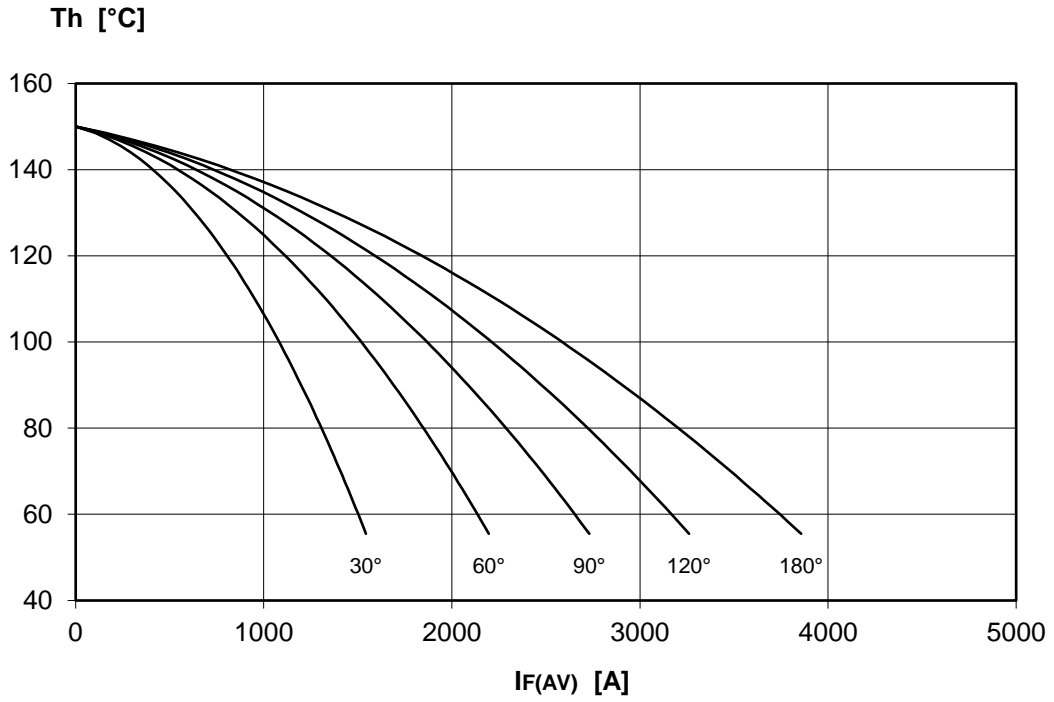
DISSIPATION CHARACTERISTICS

SQUARE WAVE



DISSIPATION CHARACTERISTICS

SINE WAVE

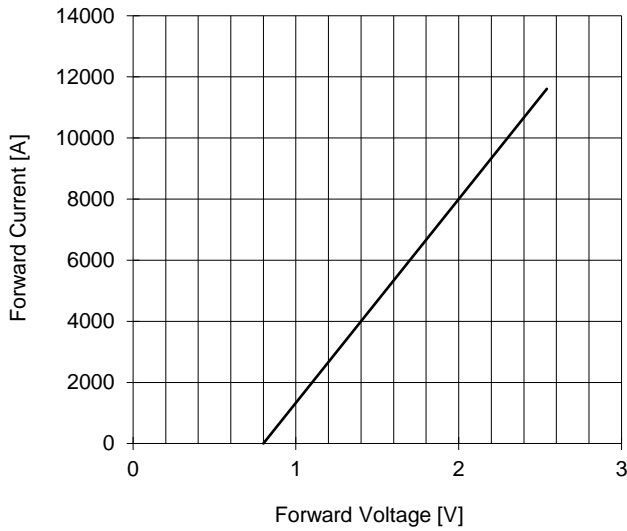


AR770 RECTIFIER DIODE

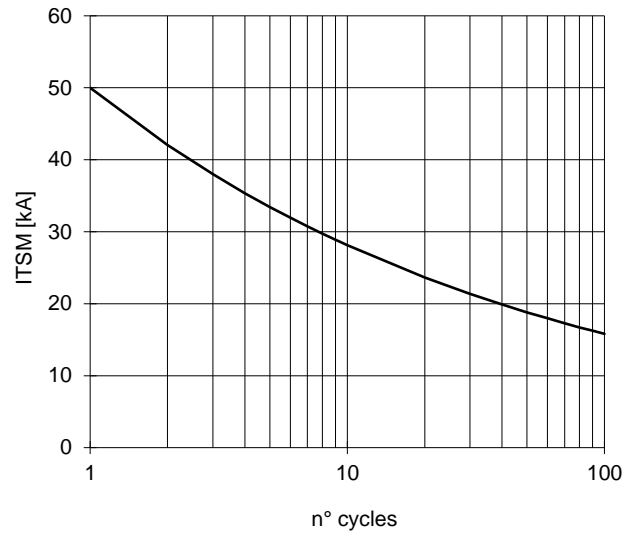


FINAL SPECIFICATION Mar. 17 - Issue: 4

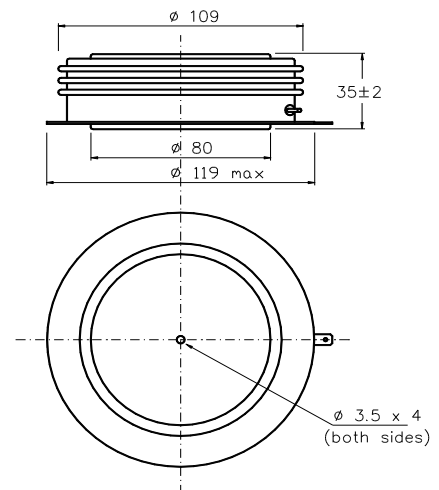
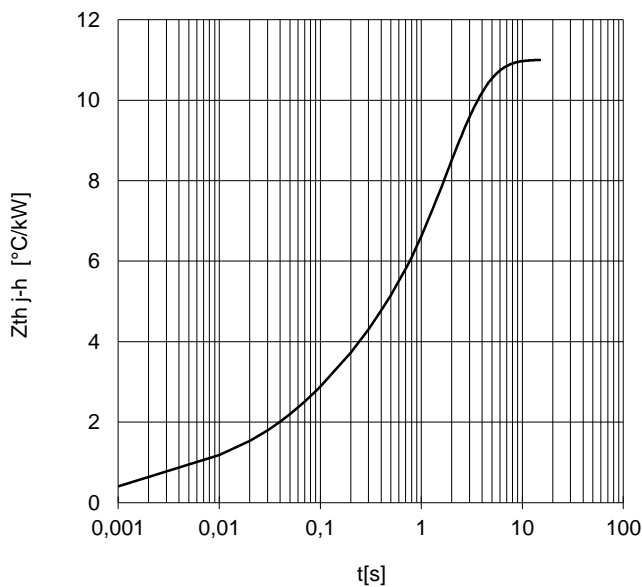
FORWARD CHARACTERISTIC
T_j = 150 °C



SURGE CHARACTERISTIC
T_j = 150 °C



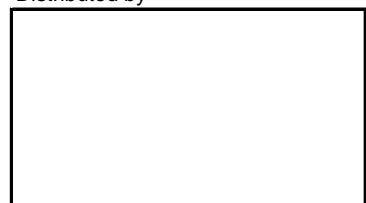
TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED



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.