


RECTIFIER DIODE

AR780

Repetitive voltage up to **6000 V**
 Mean forward current **3580 A**
 Surge current **53 kA**

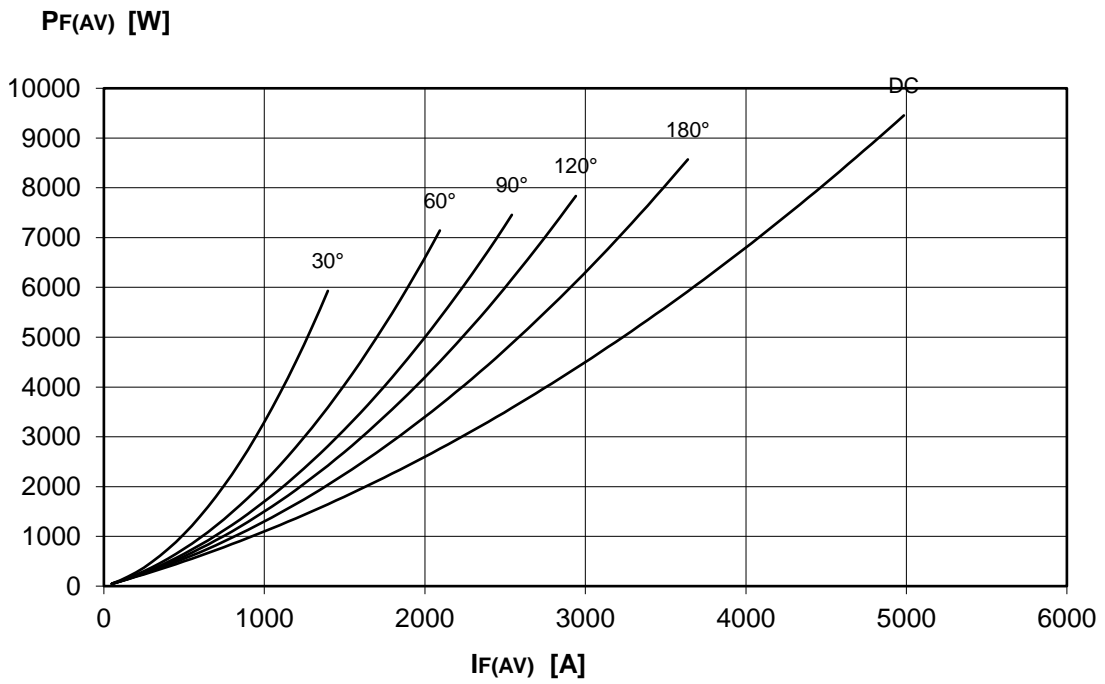
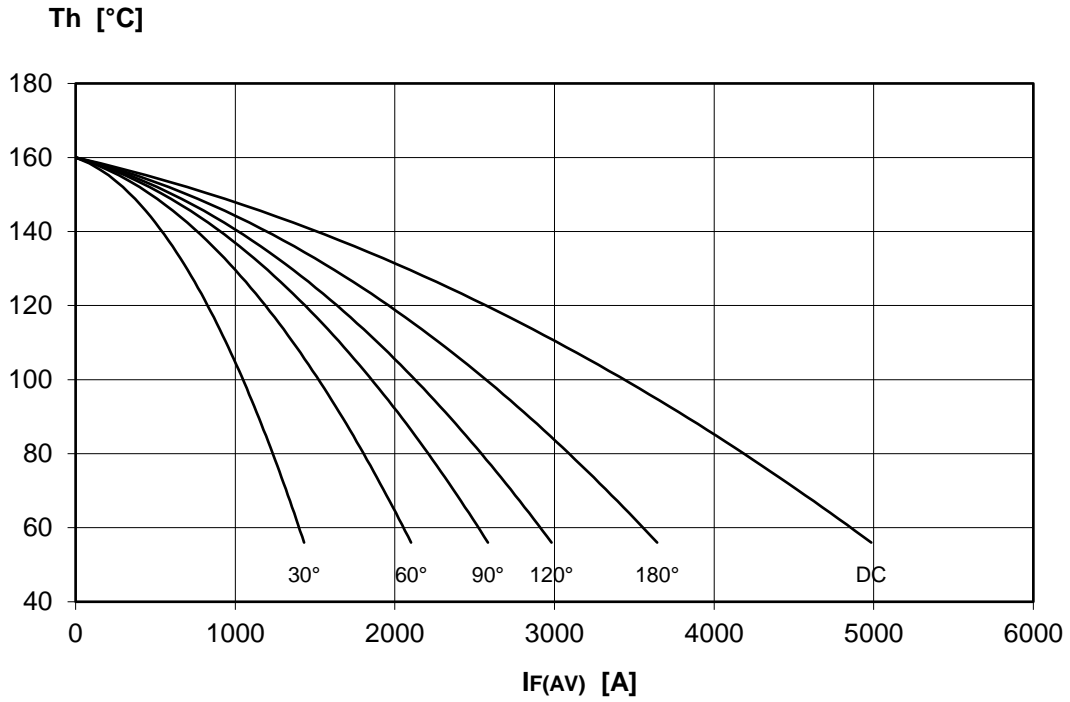
FINAL SPECIFICATION

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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		160	6000	V
V _{RSM}	Non-repetitive peak reverse voltage		160	6100	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	160	200	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		3580	A
I _{F(AV)}	Mean forward current	180° sin, 50 Hz, Tc=85°C, double side cooled		3297	A
I _{FSM}	Surge forward current	Sine wave, 10 ms without reverse voltage	160	53	kA
I ² t	I ² t			14045 x 10 ³	A ² s
V _{FM}	Forward voltage	Forward current = 4000 A	25	1,70	V
V _{F(TO)}	Threshold voltage		160	0,90	V
r _F	Forward slope resistance		160	0,200	mohm
SWITCHING					
t _{rr}	Reverse recovery time		160		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		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 / 160	°C
F	Mounting force			46.0 / 54.0	kN
	Mass			1700	g
ORDERING INFORMATION : AR780 S 60 standard specification  VRRM/100					

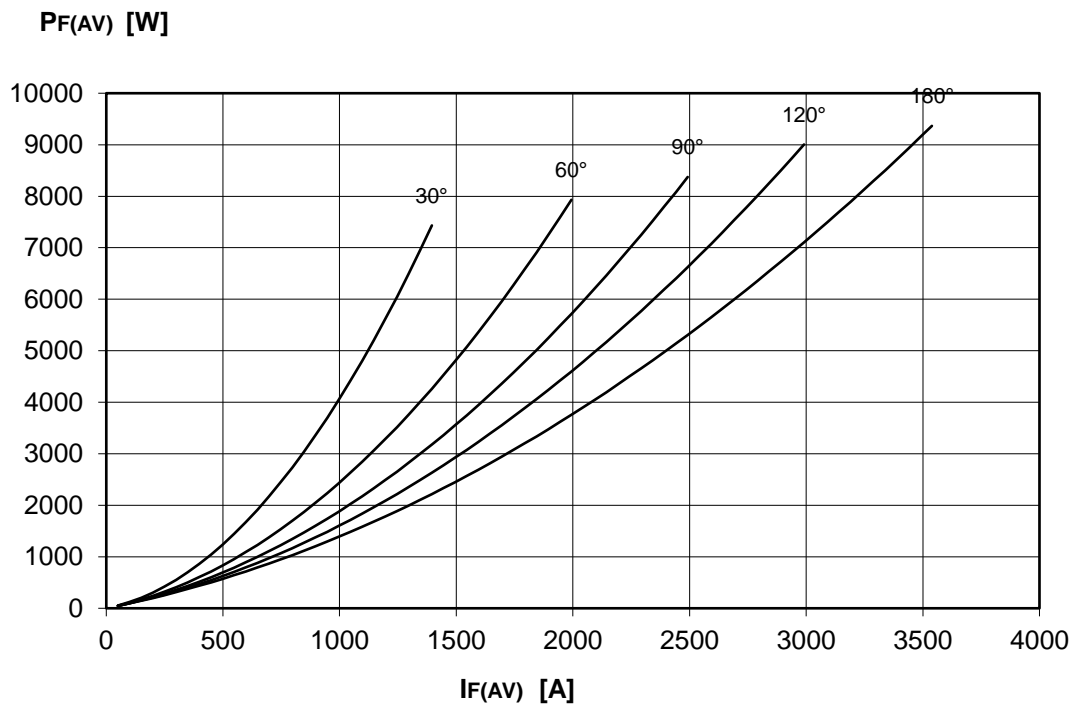
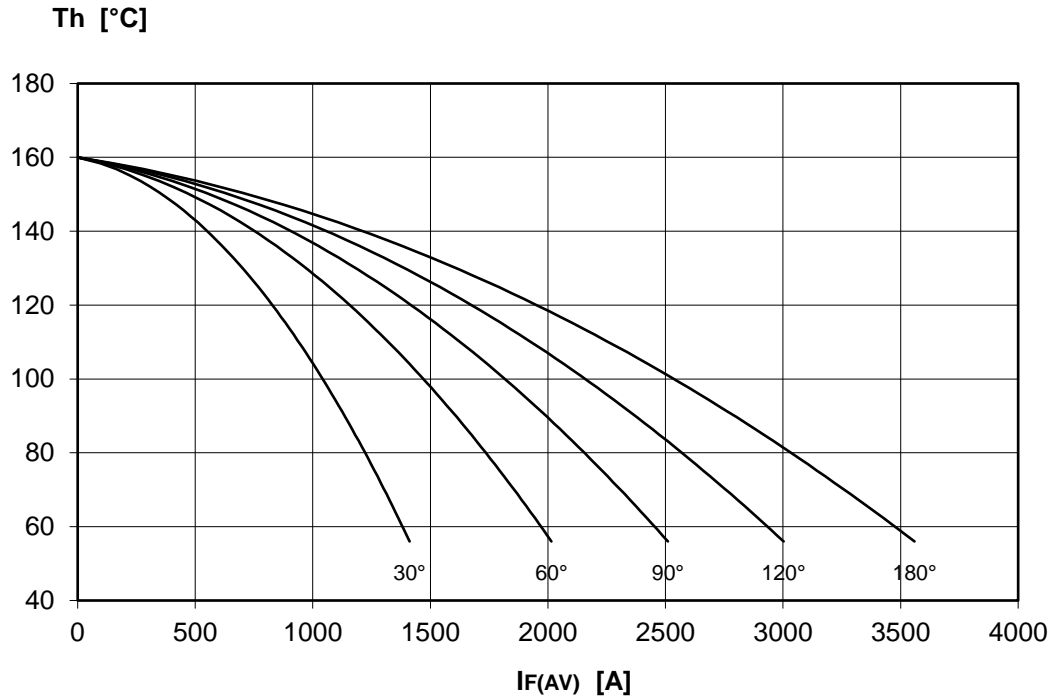
DISSIPATION CHARACTERISTICS

SQUARE WAVE



DISSIPATION CHARACTERISTICS

SINE WAVE

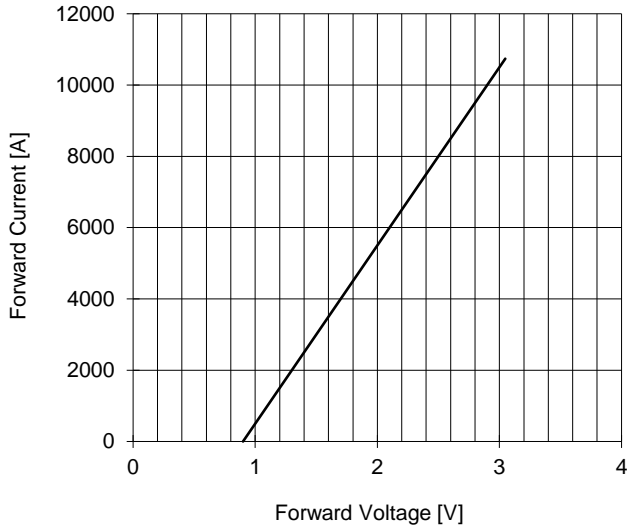


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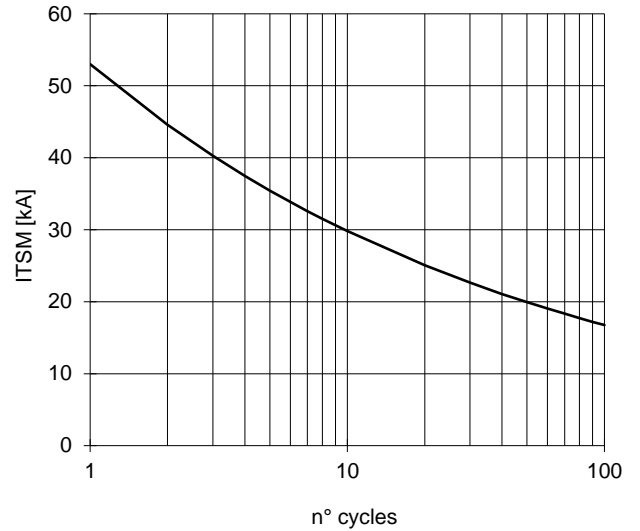


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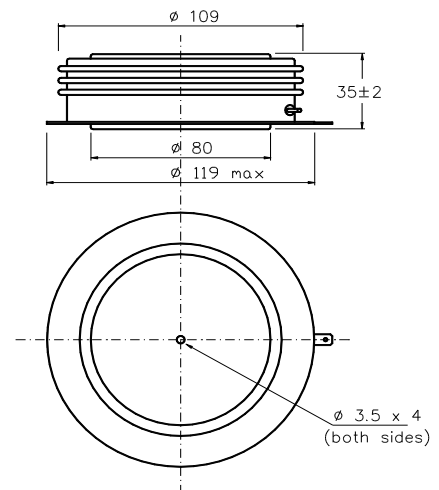
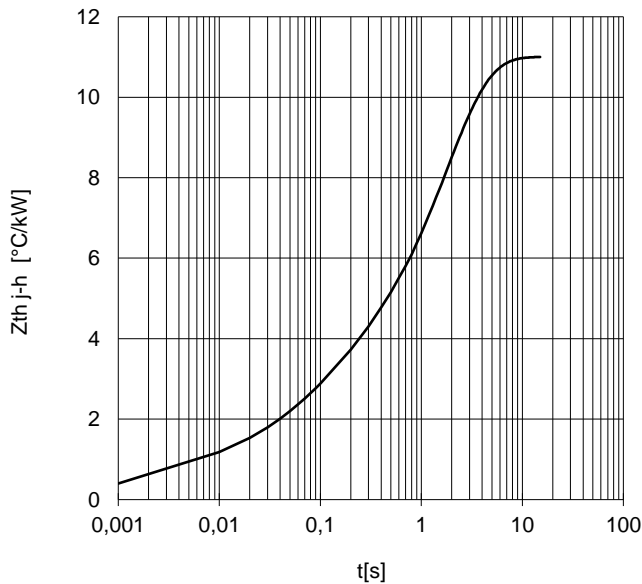
FORWARD CHARACTERISTIC
T_j = 160 °C



SURGE CHARACTERISTIC
T_j = 160 °C



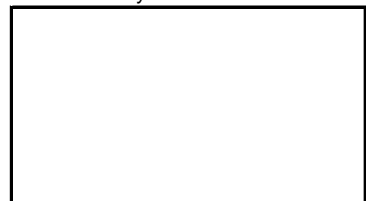
TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED



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.