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POwer SEMiconductors Italian COporation

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RECTIFIER DIODE

AR302

Repetitive voltage up to

800 V

Mean forward current

1570 A

Surge current

16 kA

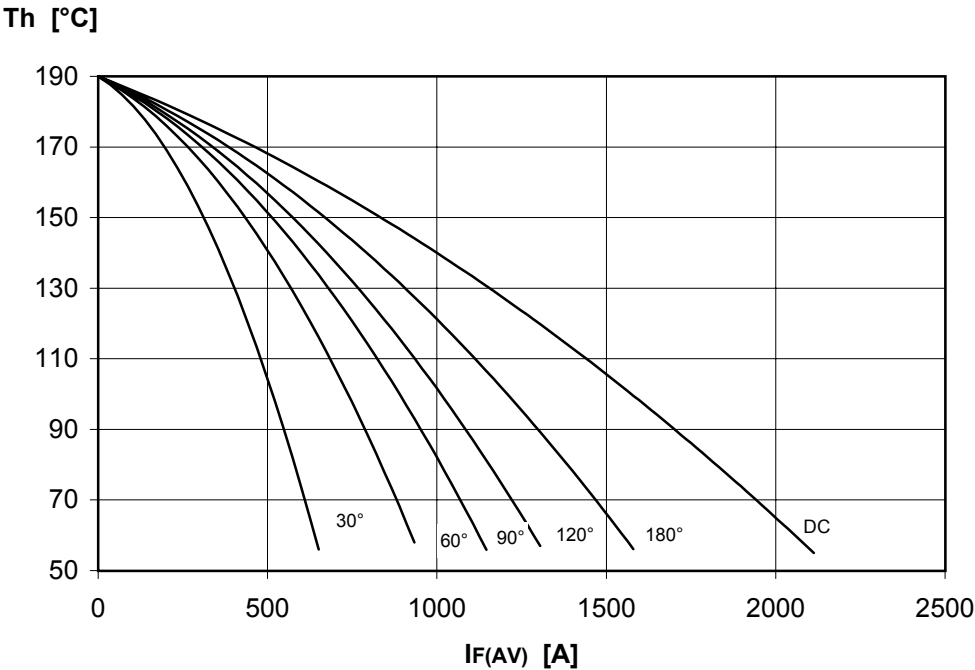
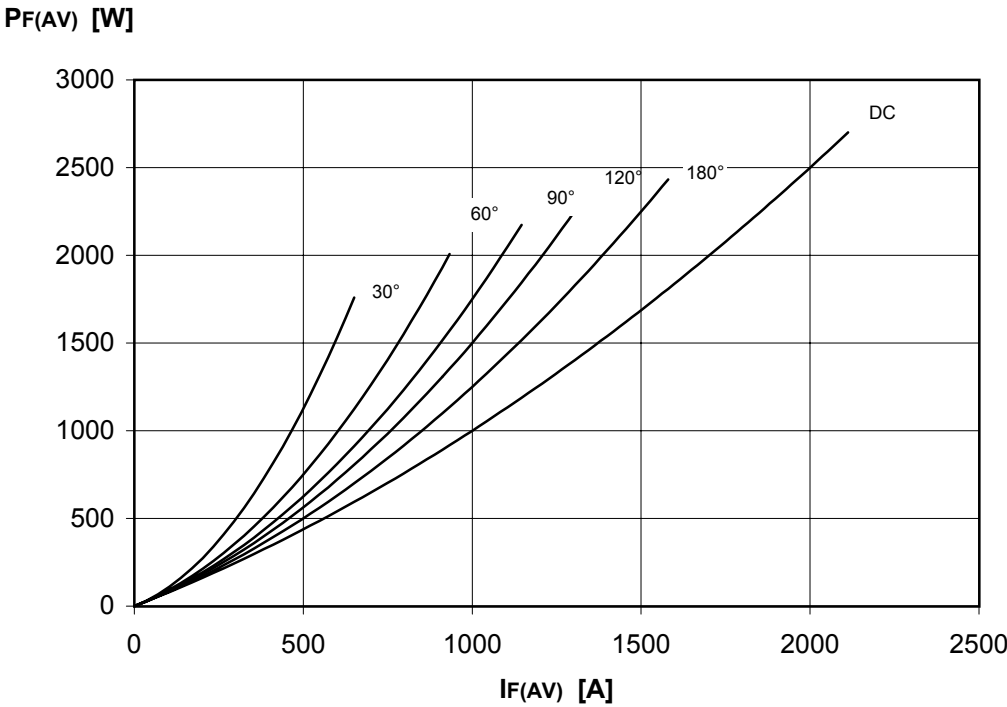
FINAL SPECIFICATION

ago 02 - ISSUE : 03

Symbol	Characteristic	Conditions	T _J [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		190	800	V
V _{RSM}	Non-repetitive peak reverse voltage		190	900	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	190	50	mA
CONDUCTING					
I _{F (AV)}	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		1570	A
I _{F (AV)}	Mean forward current	180° sin ,50 Hz, Tc=85°C, double side cooled		1680	A
I _{FSM}	Surge forward current	Sine wave, 10 ms	190	16	kA
I² t	I² t	without reverse voltage		1280 x 1E3	A²s
V _{FM}	Forward voltage	Forward current = 3000 A	25	1.55	V
V _{F(TO)}	Threshold voltage		190	0.75	V
r _F	Forward slope resistance		190	0.250	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		50	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		15	°C/kW
T _j	Operating junction temperature			-30 / 190	°C
F	Mounting force			8.0 / 9.0	kN
	Mass			85	g
ORDERING INFORMATION : AR302 S 08					
standard specification <div><div></div><div></div></div> VRRM/100					

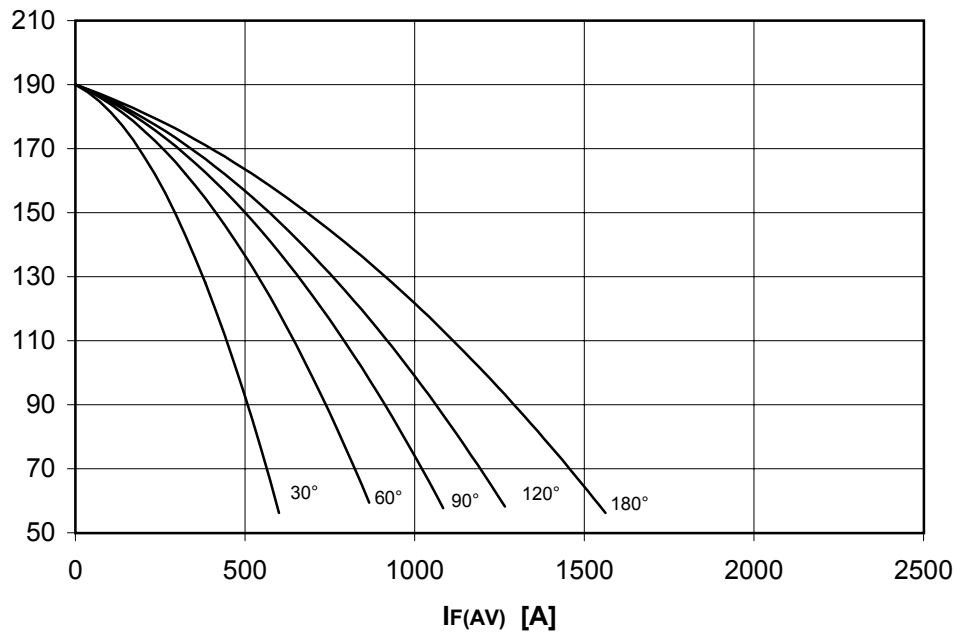
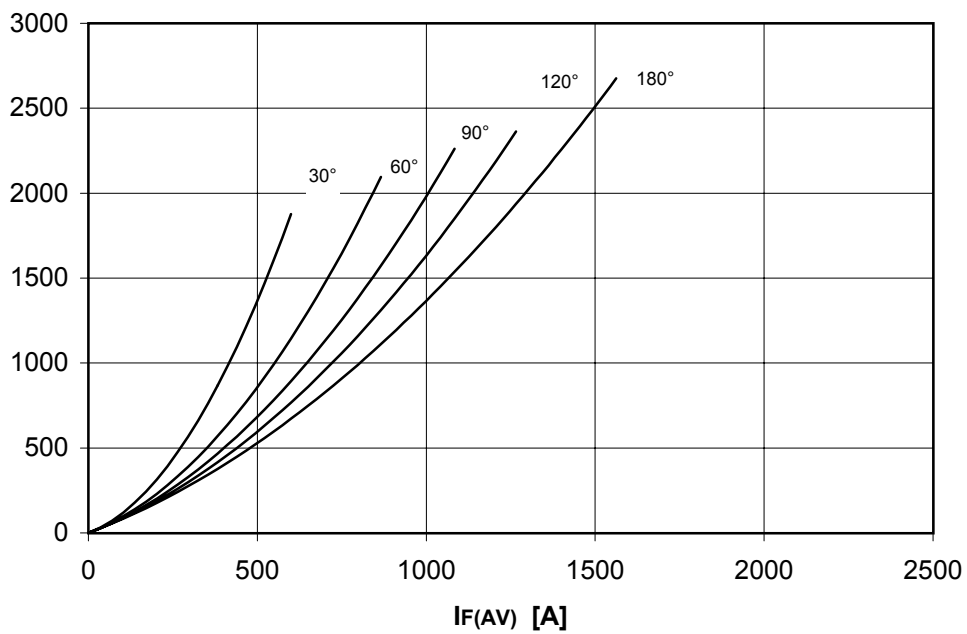
DISSIPATION CHARACTERISTICS

SQUARE WAVE



DISSIPATION CHARACTERISTICS

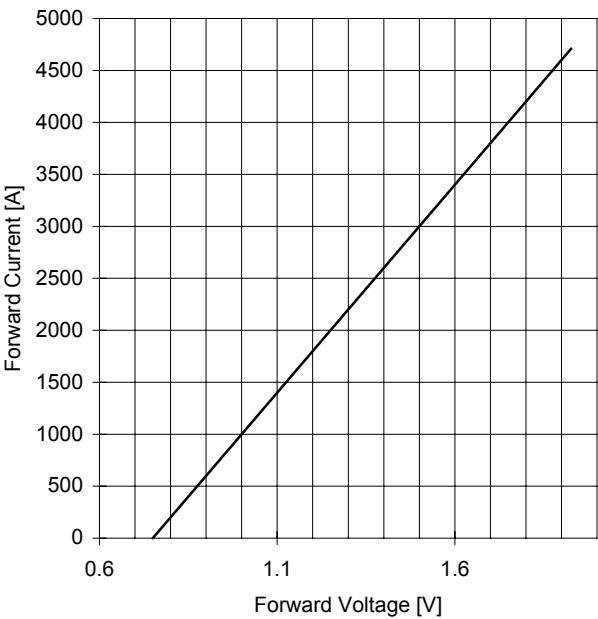
SINE WAVE

 T_h [°C] $P_F(AV)$ [W]

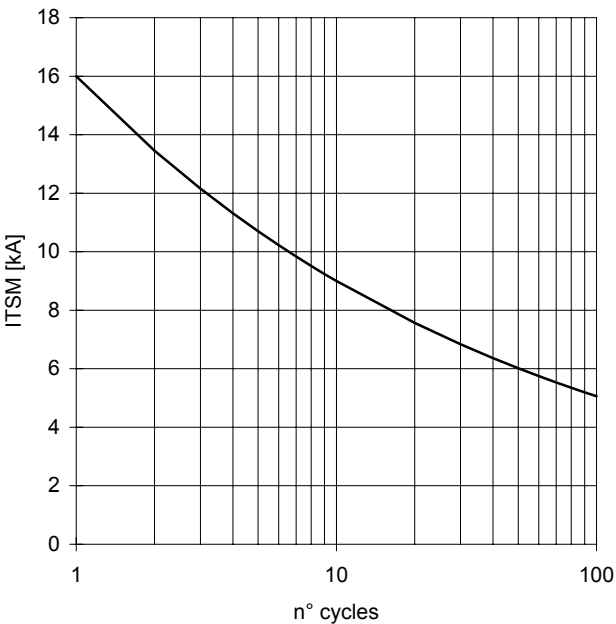
AR302 RECTIFIER DIODE

FINAL SPECIFICATION ago 02 - ISSUE : 03

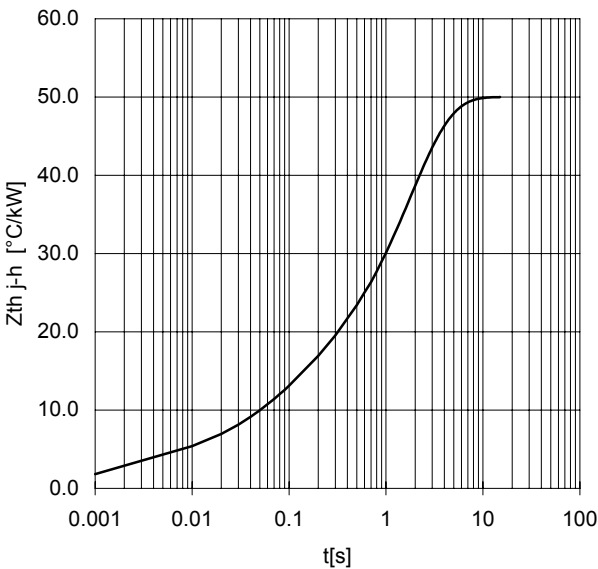
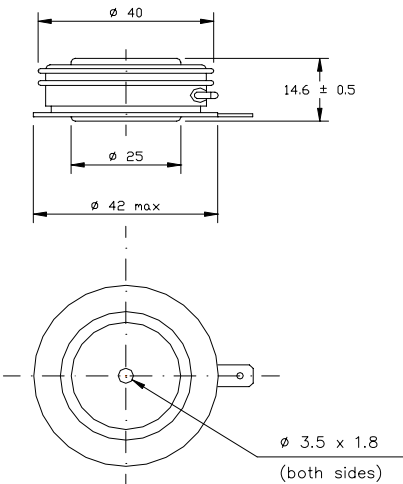
FORWARD CHARACTERISTIC
 $T_J = 190\text{ }^{\circ}\text{C}$



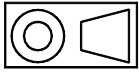
SURGE CHARACTERISTIC
 $T_J = 190\text{ }^{\circ}\text{C}$



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 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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