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## FAST RECOVERY DIODE

# ARF360

**FOR IGBT, IEGT, GCT APPLICATIONS**  
**SNUBBERLESS OPERATION**  
**LOW LOSSES SOFT RECOVERY**

Repetitive voltage up to  
Mean forward current  
Surge current

**3300 V**  
**290 A**  
**5 kA**

### FINAL SPECIFICATION

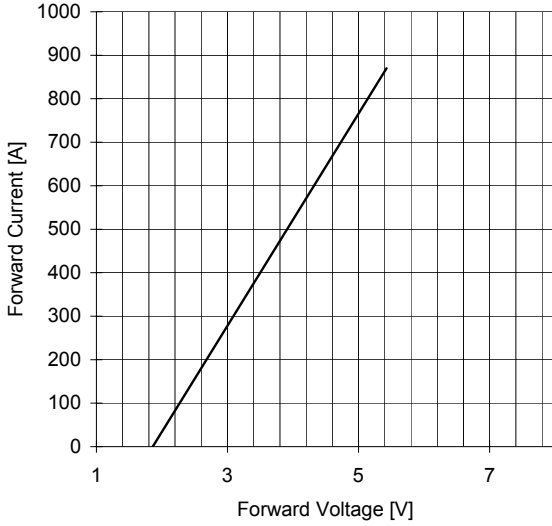
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Symbol	Characteristic	Conditions	T <sub>j</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		125	3300	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		125	3400	V
I <sub>RRM</sub>	Repetitive peak reverse current	V=V <sub>RRM</sub>	125	50	mA
V <sub>DC LINK</sub>	Permanent DC voltage		125	1500	V
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		290	A
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		300	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms reapplied reverse voltage up to 50% VRSM	125	4.5	kA
I <sup>2</sup> t	I <sup>2</sup> t			101 x1E3	A <sup>2</sup> s
V <sub>FM</sub>	Forward voltage	Forward current = 1200 A	125	6.78	V
V <sub>F(TO)</sub>	Threshold voltage		125	1.86	V
r <sub>F</sub>	Forward slope resistance		125	4.100	mohm
<b>SWITCHING</b>					
Q <sub>rr</sub>	Reverse recovery charge	I <sub>F</sub> = 500 A    di/dt= 100 A/μs VR = 50 V	125	55	μC
I <sub>rr</sub>	Peak reverse recovery current		125	85	A
t <sub>rr</sub>	Reverse recovery time	I <sub>F</sub> = 500 A di/dt= 1000 A/μs VR = 1800 V	125		μs
Q <sub>rr</sub>	Reverse recovery charge			226	μC
I <sub>rr</sub>	Peak reverse recovery current			545	A
s	Softness (s-factor), min				
E <sub>OFF</sub>	Turn off energy dissipation				J
V <sub>FR</sub>	Peak forward recovery	di/dt= 400 A/μs	125		V
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance	Junction to heatsink, double side cooled		50	°C/kW
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, double side cooled		15	°C/kW
T <sub>j</sub>	Operating junction temperature			-30 / 125	°C
F	Mounting force			8.0 / 9.0	kN
	Mass			85	g
<b>ORDERING INFORMATION : ARF360 S 33</b>					
standard specification <input type="checkbox"/> <input type="checkbox"/> VRRM/100					

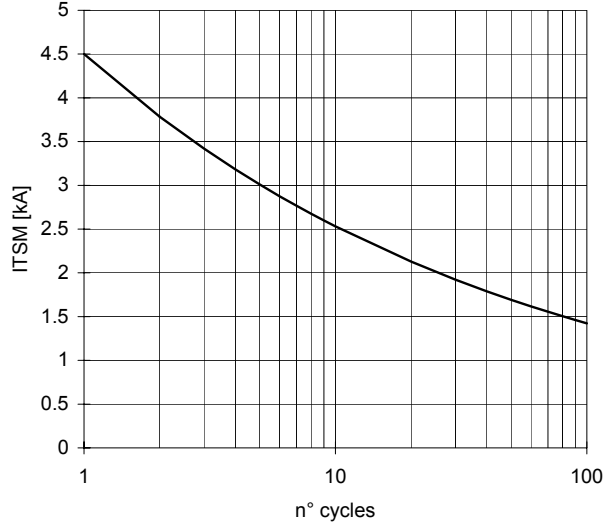
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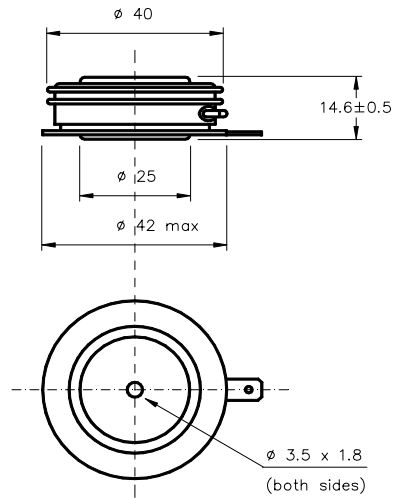
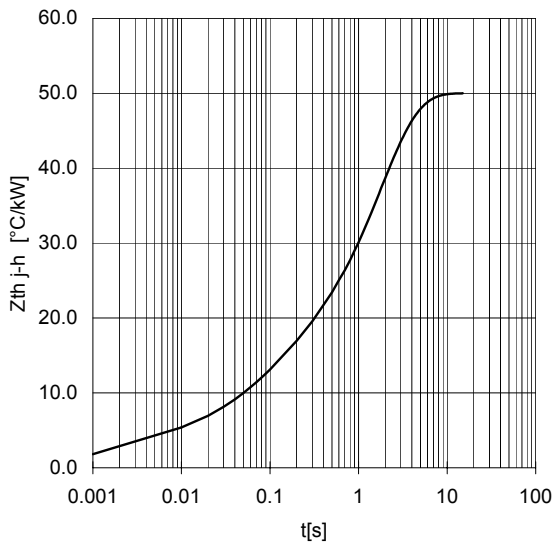
FORWARD CHARACTERISTIC  
T<sub>j</sub> = 125 °C



SURGE CHARACTERISTIC  
T<sub>j</sub> = 125 °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.

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