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FAST RECOVERY DIODE

ARF664

FOR IGBT,IEGT,GCT APPLICATIONS

SNUBBERLESS OPERATION

LOW LOSSES SOFT RECOVERY

Repetitive voltage up to	**3300 V**
Mean forward current	**1000 A**
Surge current	**18 kA**

TARGET SPECIFICATION

gen 03 - ISSUE : 1

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		125	3300	V
V_{RSM}	Non-repetitive peak reverse voltage		125	3400	V
I_{RRM}	Repetitive peak reverse current	V=VRRM	125		mA
$V_{DC\ LINK}$	Permanent DC voltage		125	1500	V
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		1000	A
$I_{F(AV)}$	Mean forward current	180° square,50 Hz,Th=55°C,double side cooled		1025	A
I_{FSM}	Surge forward current	Sine wave, 10 ms reapplied reverse voltage up to 50% VRSM	125	18	kA
I^2t	I^2t			1620 x1E3	A^2s
V_{FM}	Forward voltage	Forward current = 1570 A	25	3.55	V
$V_{F(TO)}$	Threshold voltage		125	1.80	V
r_F	Forward slope resistance		125	0.70	mohm
SWITCHING					
Q_{rr}	Reverse recovery charge	I F = 1000 A di/dt= 250 A/µs VR = 100 V	125		µC
I_{rr}	Peak reverse recovery current		125		A
t_{rr}	Reverse recovery time	I F = 1100 A di/dt= 500 A/µs VR = V	125		µs
Q_{rr}	Reverse recovery charge			2000	µC
I_{rr}	Peak reverse recovery current			1100	A
s	Softness (s-factor), min				
E_{OFF}	Turn off energy dissipation				J
V_{FR}	Peak forward recovery	di/dt= 500 A/µs	125		V
MOUNTING					
$R_{th(j-h)}$	Thermal impedance	Junction to heatsink, double side cooled		21	°C/kW
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, double side cooled		6	°C/kW
T_j	Operating junction temperature			00 / 125	°C
F	Mounting force			22.0 / 24.5	kN
	Mass			520	g

ORDERING INFORMATION : ARF664 S 33

standard specification — VRRM/100

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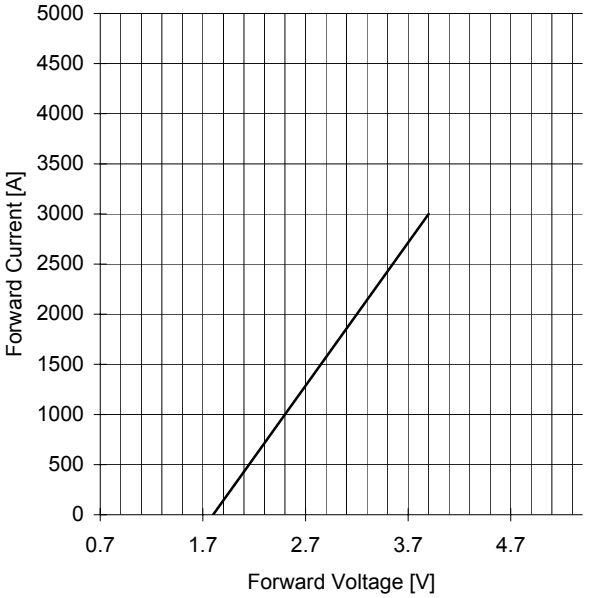
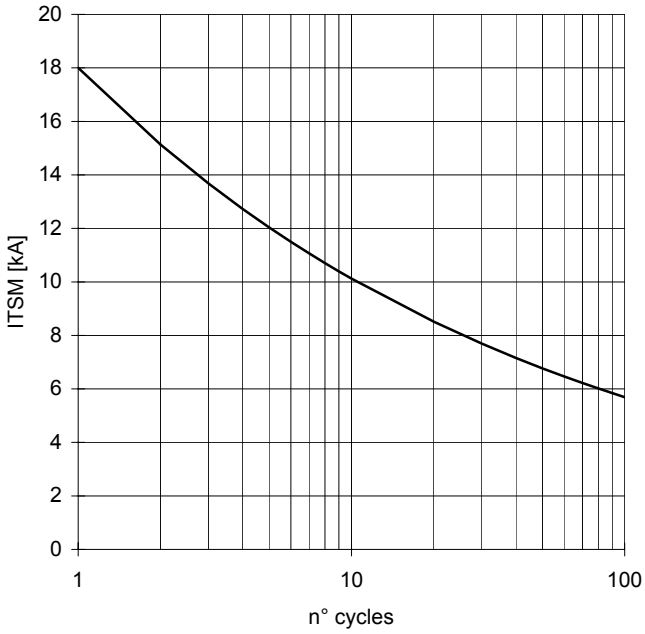
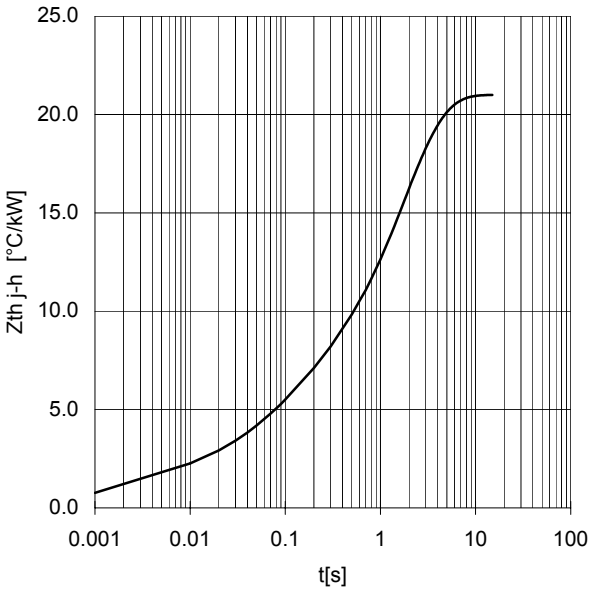
FORWARD CHARACTERISTIC
Tj = 125 °C

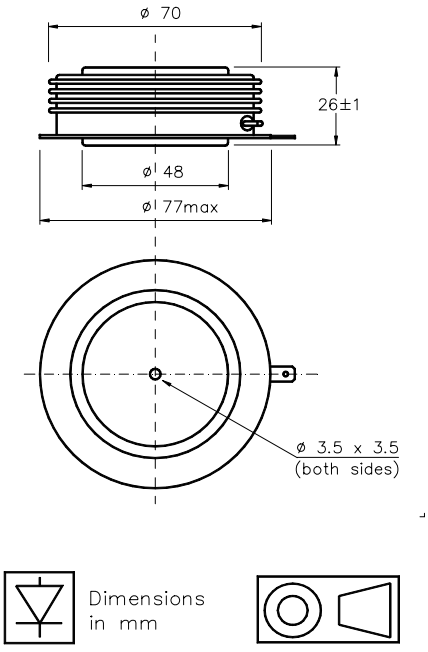


SURGE CHARACTERISTIC
Tj = 125 °C



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 (simbols over shaded background) and characteristics is reported.

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