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FAST RECOVERY DIODE

ARF664

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

Repetitive voltage up to
Mean forward current
Surge current

3300 V
1000 A
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	125	18	kA
I ² t	I ² t	reapplied reverse voltage up to 50% VRSM		1620 x1E3	A ² s
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			μs
Q _{rr}	Reverse recovery charge	di/dt= 500 A/μs VR = V	125	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

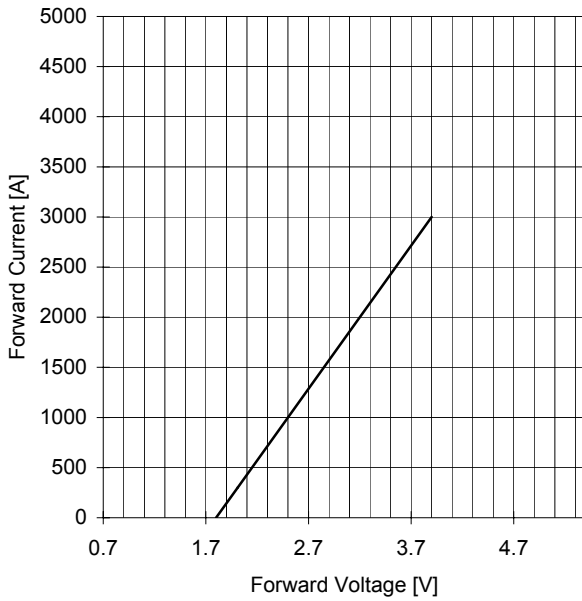
ORDERING INFORMATION : ARF664 S 33

standard specification VRRM/100

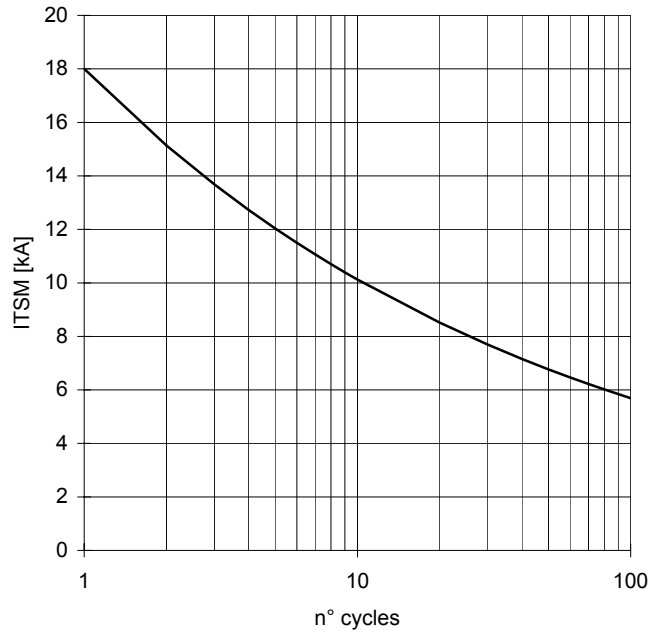
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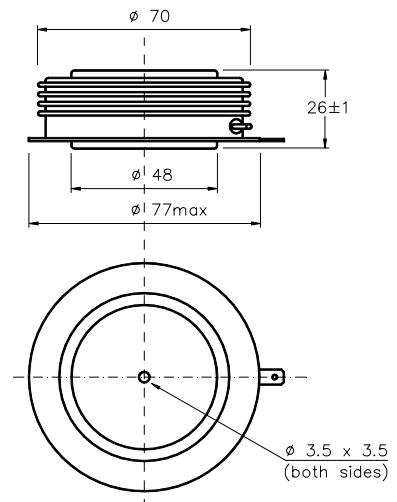
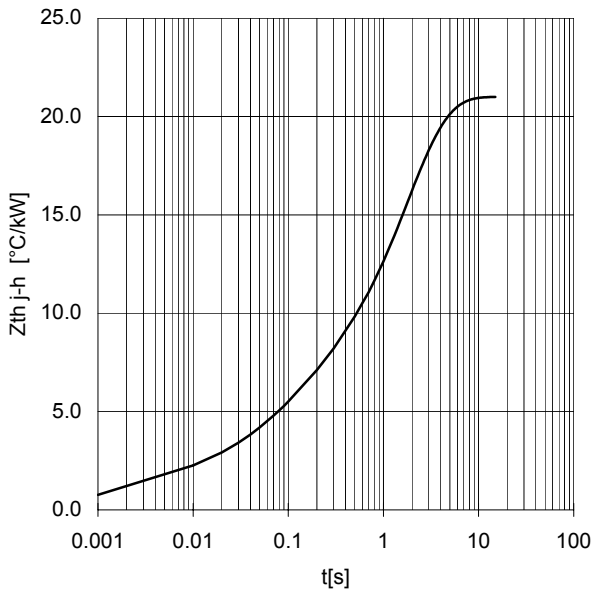
FORWARD CHARACTERISTIC
 $T_j = 125\text{ }^\circ\text{C}$



SURGE CHARACTERISTIC
 $T_j = 125\text{ }^\circ\text{C}$



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 $< 0.03\text{ mm}$ and roughness $< 2\text{ }\mu\text{m}$.

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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