

FAST RECOVERY DIODE

ARF462

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

Repetitive voltage up to
Mean forward current
Surge current

4500 V
435 A
10 kA

TARGET SPECIFICATION

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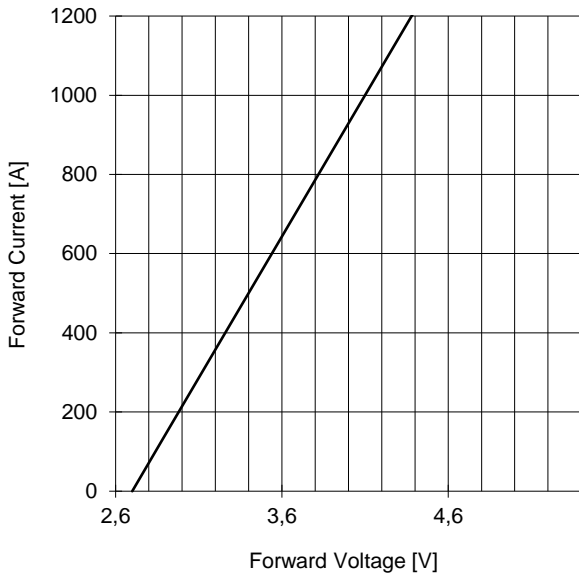
Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		125	4500	V
V _{RSM}	Non-repetitive peak reverse voltage		125	4600	V
I _{RRM}	Repetitive peak reverse current	V=VRRM	125	50	mA
V _{DC LINK}	Permanent DC voltage		125	2500	V
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		435	A
I _{F(AV)}	Mean forward current	180° square,50 Hz,Th=55°C,double side cooled		440	A
I _{FSM}	Surge forward current	Sine wave, 10 ms	125	10	kA
I ² t	I ² t	reapplied reverse voltage up to 50% VRSM		500 x1E3	A ² s
V _{FM}	Forward voltage	Forward current = 1800 A	125	5,22	V
V _{F(TO)}	Threshold voltage		125	2,70	V
r _F	Forward slope resistance		125	1,400	mohm
SWITCHING					
Q _{rr}	Reverse recovery charge	I _F = 1000 A di/dt= 250 A/μs VR = 100 V	125	500	μC
I _{rr}	Peak reverse recovery current		125	360	A
t _{rr}	Reverse recovery time	I _F = 1000 A di/dt= 1000 A/μs VR = 1800 V	125		μs
Q _{rr}	Reverse recovery charge			1150	μC
I _{rr}	Peak reverse recovery current			900	A
s	Softness (s-factor), min				
E _{OFF}	Turn off energy dissipation			2,3	J
V _{FR}	Peak forward recovery	di/dt= 400 A/μs	125	38	V
MOUNTING					
R _{th(j-h)}	Thermal impedance	Junction to heatsink, double side cooled		37,0	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		10,0	°C/kW
T _j	Operating junction temperature			-30 / 125	°C
F	Mounting force			11.8 / 13.2	kN
	Mass			300	g

ORDERING INFORMATION : ARF462 S 45

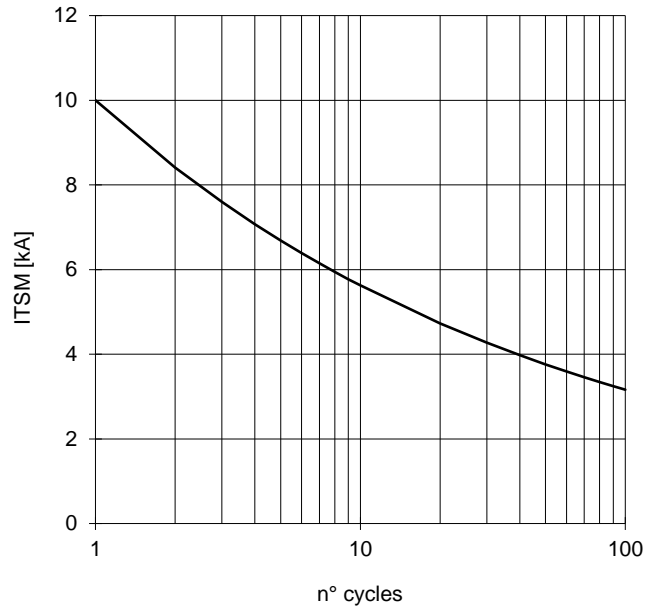
standard specification VRRM/100

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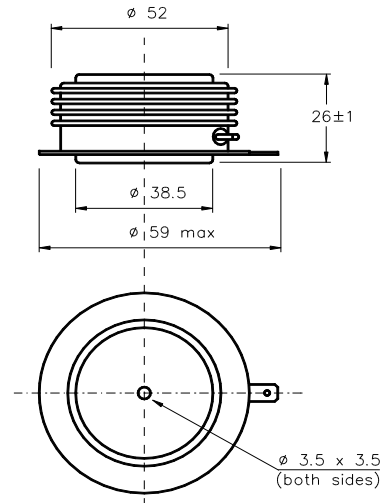
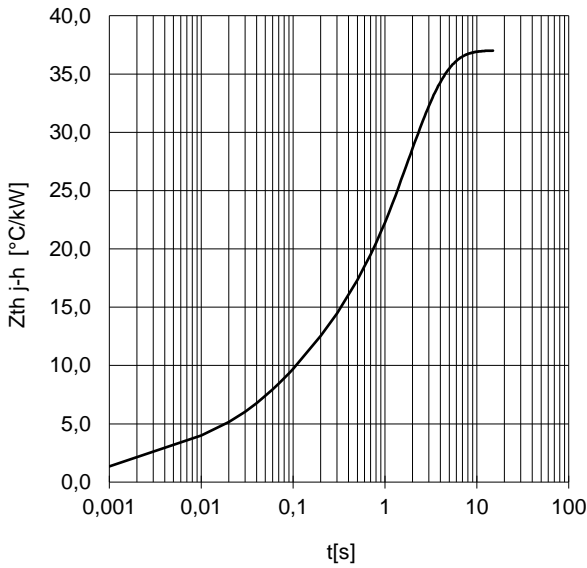
FORWARD CHARACTERISTIC
T_j = 125 °C



SURGE CHARACTERISTIC
T_j = 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 ANSALDO 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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