ANSALDO

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Tx 270318 ANSUSE I -

FAST RECOVERY DIODE

ARF422

Repetitive voltage up to **1600 V**
Mean forward current **940 A**
Surge current **14 kA**

TARGET SPECIFICATION

feb 97 - ISSUE : 02

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		125	1600	V
V_{RSM}	Non-repetitive peak reverse voltage		125	1700	V
I_{RRM}	Repetitive peak reverse current	V=VRRM	125	50	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		940	A
$I_{F(AV)}$	Mean forward current	180° square,50 Hz,Th=55°C,double side cooled		930	A
I_{FSM}	Surge forward current	Sine wave, 10 ms reapplied reverse voltage up to 50% VRSM	125	14	kA
I^2t	I^2t			980 x1E3	A^2s
V_{FM}	Forward voltage	Forward current 1200 A	125	1.57	V
$V_{F(TO)}$	Threshold voltage		125	1.20	V
r_F	Forward slope resistance		125	0.350	mohm
SWITCHING					
t_{rr}	Reverse recovery time	I_F = 1000 A, di/dt= 60 A/µs, VR = 50 V	125	3.5	µs
Q_{rr}	Reverse recovery charge			200	µC
I_{rr}	Peak reverse recovery current			120	A
s	Softness (s-factor), min			0.5	
V_{FR}	Peak forward recovery	di/dt= 100 A/µs	125	5	V
MOUNTING					
$R_{th(j-h)}$	Thermal impedance	Junction to heatsink, double side cooled		37	°C/kW
T_j	Operating junction temperature			-30 / 125	°C
F	Mounting force			11.8 / 13.2	kN
	Mass			300	g

ORDERING INFORMATION : ARF422 S 16

standard specification — VRRM/100

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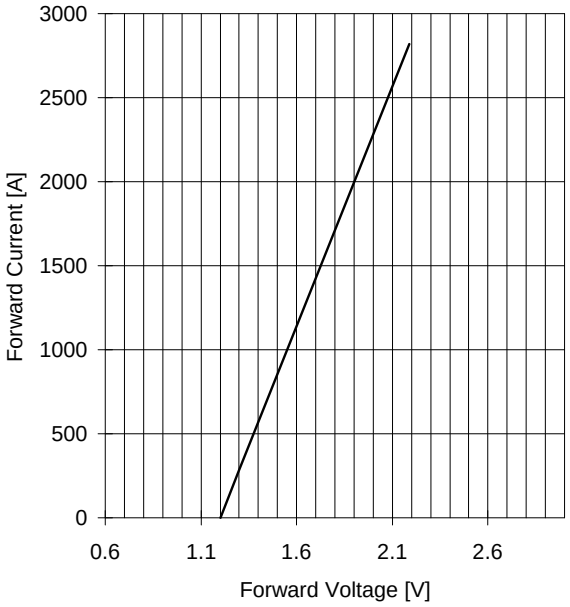
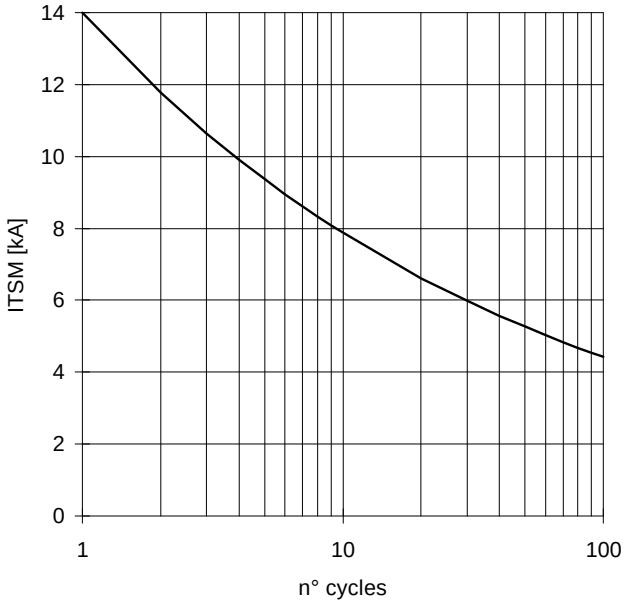
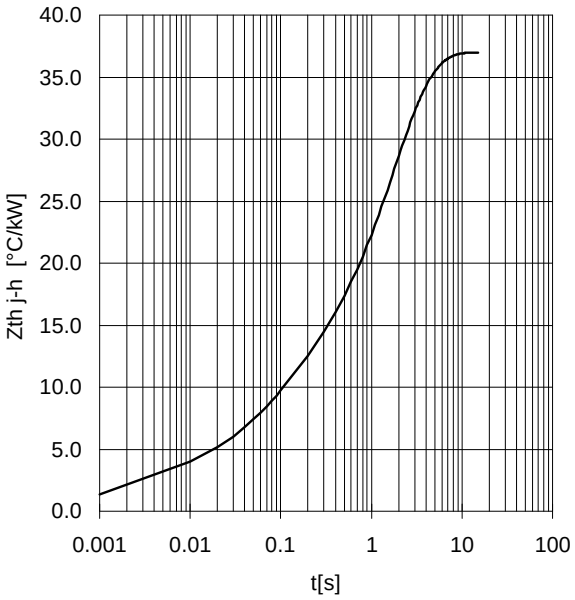
FORWARD CHARACTERISTIC
Tj = 125 °C

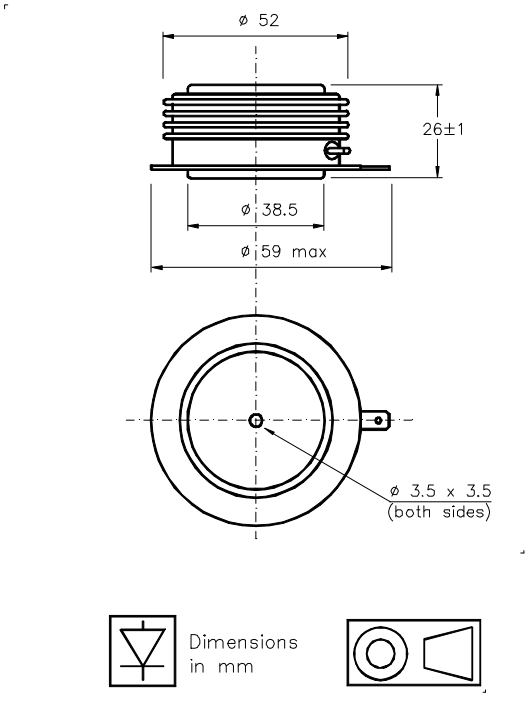


SURGE CHARACTERISTIC
Tj = 125 °C



TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED





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 (simbols over shaded background) and characteristics is reported.

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