

ANSALDO**Ansaldo Trasporti s.p.a.**
Unita' SemiconduttoriVia N. Lorenzi 8 - I 16152 GENOVA - ITALY
Tel. int. +39/(0)10 6556549 - (0)10 6556488
Fax Int. +39/(0)10 6442510
Tx 270318 ANSUSE I -**FAST RECOVERY DIODE****ARF422**

Repetitive voltage up to

1600 V

Mean forward current

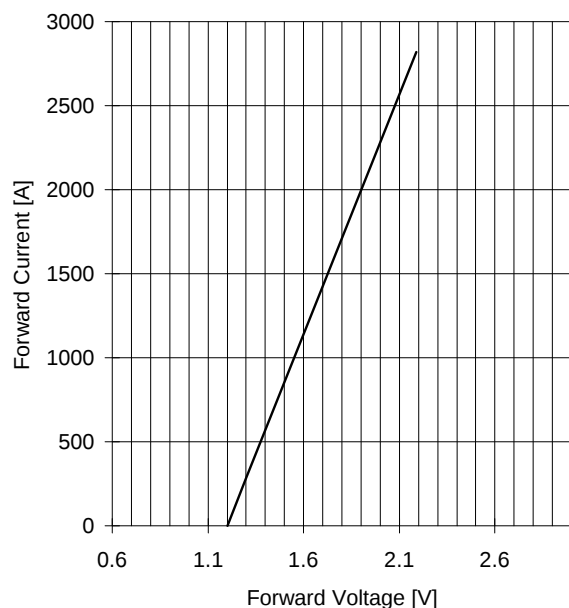
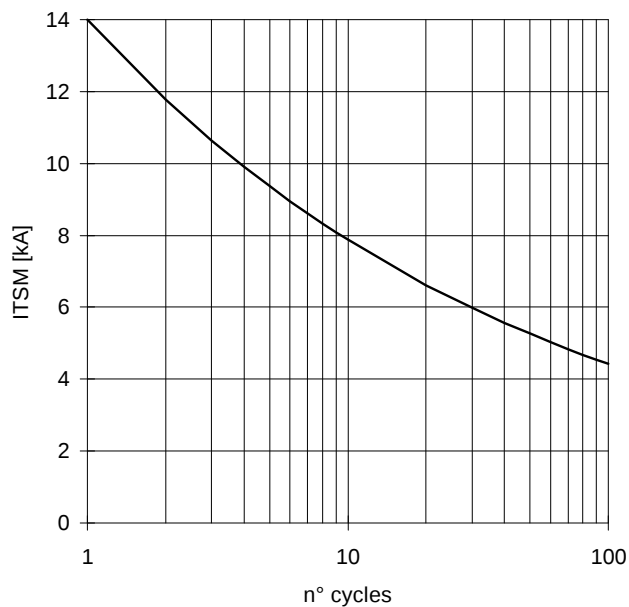
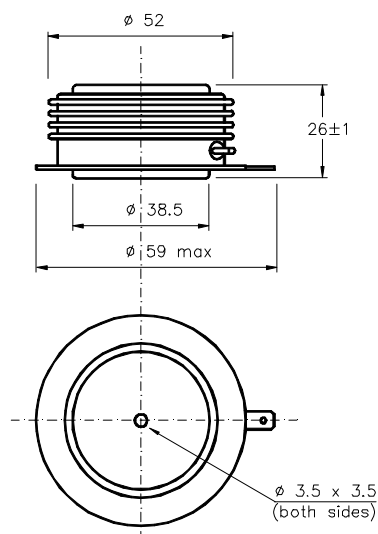
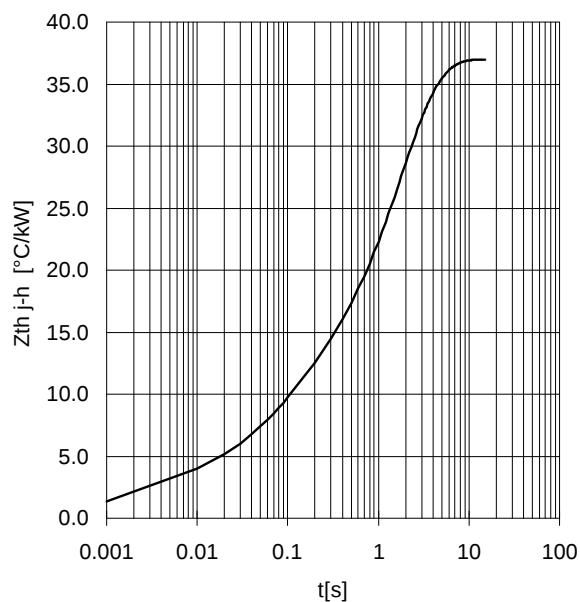
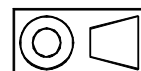
940 A

Surge current

14 kA**TARGET SPECIFICATION**

feb 97 - ISSUE : 02

Symbol	Characteristic	Conditions	T _j [°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=V _{RRM}	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	125	14	kA
I ² t	I ² t	reapplied reverse voltage up to 50% VRSM		980 x1E3	A ² s
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					

FORWARD CHARACTERISTIC
 $T_j = 125^\circ\text{C}$ SURGE CHARACTERISTIC
 $T_j = 125^\circ\text{C}$ TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLEDDimensions
in mm

All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness $< .03 \text{ mm}$ and roughness $< 2 \mu\text{m}$.

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.

Distributed by

