

查询AT603供应商

捷多邦, 专业PCB打样工厂, 24小时加急出货

ANSALDO

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PHASE CONTROL THYRISTOR

AT603

Repetitive voltage up to **1600 V**
Mean on-state current **720 A**
Surge current **8.8 kA**

FINAL SPECIFICATION

feb 97 - ISSUE : 03

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
V _{DRM}	Repetitive peak off-state voltage		125	1600	V
I _{RRM}	Repetitive peak reverse current	V=V _{RRM}	125	50	mA
I _{DRM}	Repetitive peak off-state current	V=V _{DRM}	125	50	mA
CONDUCTING					
I _{T(AV)}	Mean on-state current	180° sin, 50 Hz, Th=55°C, double side cooled		720	A
I _{T(AV)}	Mean on-state current	180° sin, 50 Hz, Tc=85°C, double side cooled		630	A
I _{TSM}	Surge on-state current	sine wave, 10 ms	125	8.8	kA
I ² t	I ² t	without reverse voltage		387 x1E3	A ² s
V _T	On-state voltage	On-state current = 1000 A	25	1.5	V
V _{T(TO)}	Threshold voltage		125	0.91	V
r _T	On-state slope resistance		125	0.580	mohm
SWITCHING					
di/dt	Critical rate of rise of on-state current, min.	From 75% V _{DRM} up to 860 A, gate 10V 5ohm	125	200	A/μs
dv/dt	Critical rate of rise of off-state voltage, min.	Linear ramp up to 70% of V _{DRM}	125	500	V/μs
t _d	Gate controlled delay time, typical	V _D =100V, gate source 10V, 10 ohm, tr=.5 μs	25	1.3	μs
t _q	Circuit commutated turn-off time, typical	dV/dt = 20 V/μs linear up to 75% V _{DRM}		250	μs
Q _{rr}	Reverse recovery charge	di/dt=-20 A/μs, I= 560 A	125		μC
I _{rr}	Peak reverse recovery current	V _R = 50 V			A
I _H	Holding current, typical	V _D =5V, gate open circuit	25	300	mA
I _L	Latching current, typical	V _D =5V, tp=30μs	25	700	mA
GATE					
V _{GT}	Gate trigger voltage	V _D =5V	25	3.5	V
I _{GT}	Gate trigger current	V _D =5V	25	200	mA
V _{GD}	Non-trigger gate voltage, min.	V _D =V _{DRM}	125	0.25	V
V _{FGM}	Peak gate voltage (forward)			30	V
I _{FGM}	Peak gate current			10	A
V _{RGM}	Peak gate voltage (reverse)			5	V
P _{GM}	Peak gate power dissipation	Pulse width 100 μs		150	W
P _G	Average gate power dissipation			2	W
MOUNTING					
R _{th(j-h)}	Thermal impedance, DC	Junction to heatsink, double side cooled		50	°C/kW
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		15	°C/kW
T _j	Operating junction temperature			-30 / 125	°C
F	Mounting force			8.0 / 9.0	kN
Mass				85	g

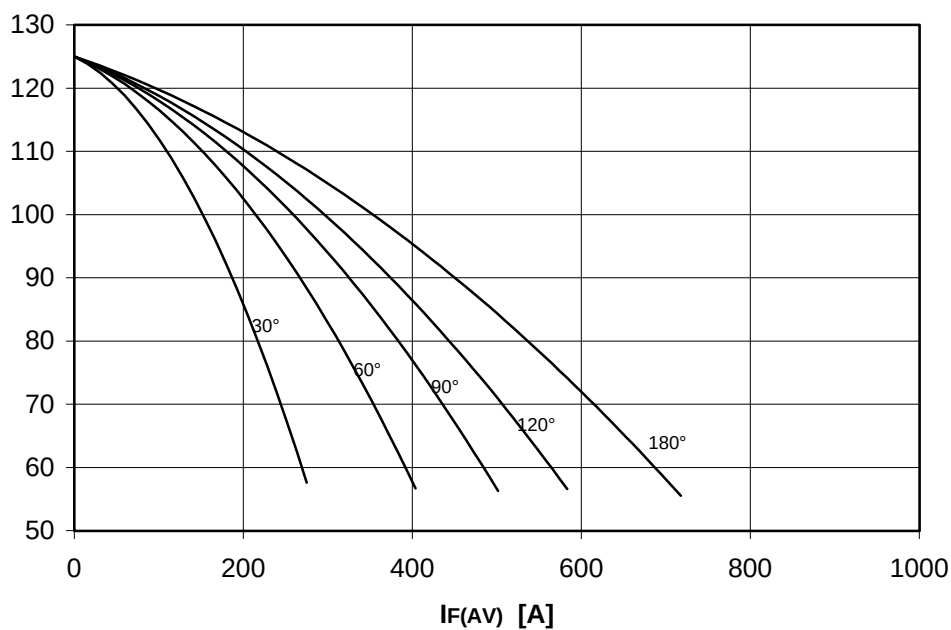
ORDERING INFORMATION : AT603 S 16

standard specification ☐ VDRM&VRRM/100 ☐

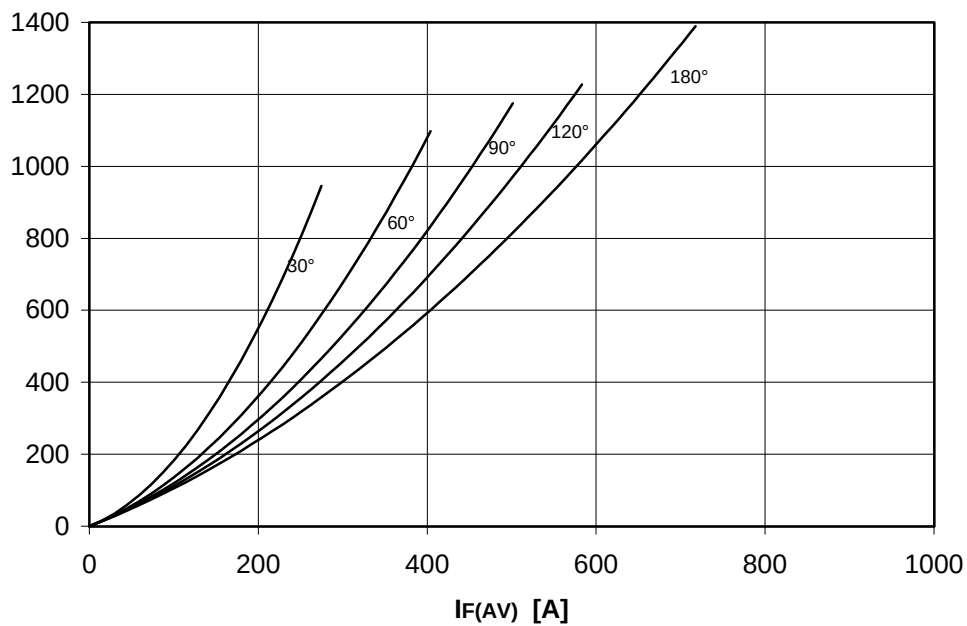
DISSIPATION CHARACTERISTICS

SINE WAVE

Th [°C]



PF(AV) [W]

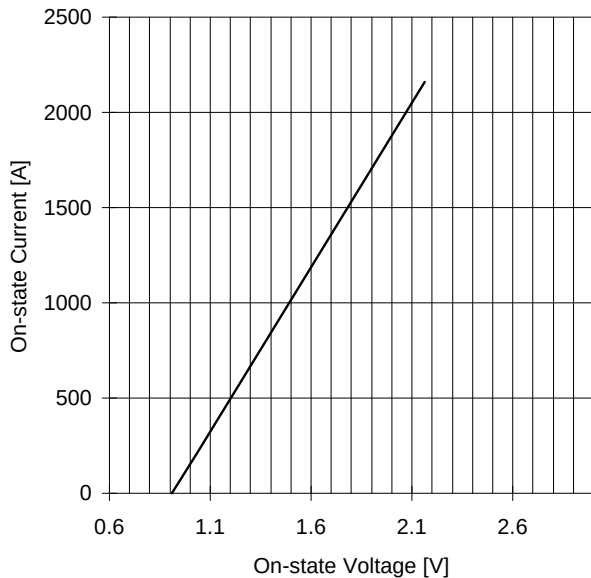


AT603 PHASE CONTROL THYRISTOR

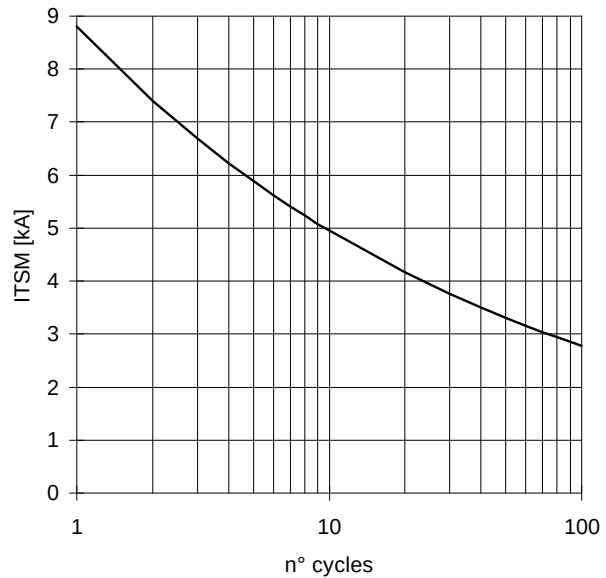
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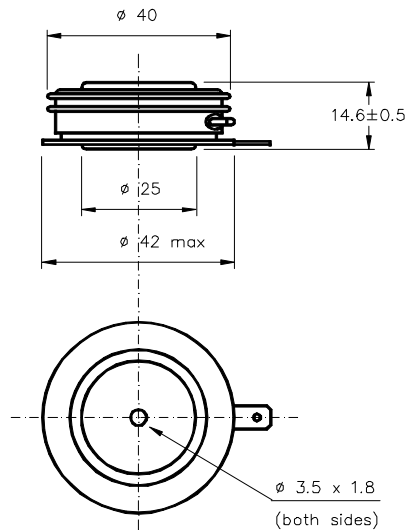
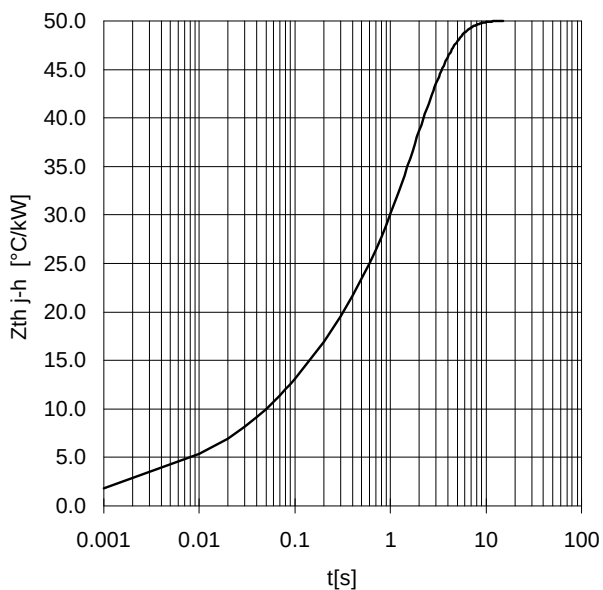
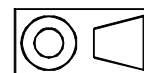
ON-STATE CHARACTERISTIC
 $T_J = 125\text{ }^{\circ}\text{C}$



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



TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED

Dimensions
in mm

Cathode terminal type DIN 46244 - A 4.8 - 0.8

Gate terminal type AMP 60598 - 1

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 $< 2\text{ }\mu\text{m}$.

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.

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