POSEICO
POWER ELECTRONICS

GATE TURN-OFF THYRISTOR

ATG635

Repetitive voltage up to **2500 V**
Controllable on-state current **1400 A**
Surge on-state current **10 kA**

FINAL SPECIFICATION

apr 19 - ISSUE : 3

Symbol	Characteristic	Conditions	Tj °C	Value min	Value typ	Value max	Unit
BLOCKING							
V_{DRM}	Repetitive peak off-state voltage		125			2500	V
V_{RRM}	Repetitive peak reverse voltage					15	V
I_{DRM}	Repetitive peak off-state current	V_D=VDRM V_{GK}= -2V				100	mA
I_{RRM}	Repetitive peak reverse current	V_R=VRRM				50	mA
(dv/dt) crit	Critical rate of rise of off-state voltage, min	Linear ramp up to 70% VDRM, V_{GK}= -2V		1000			V/uS
CONDUCTING							
I_{TAV}	mean. on state current	180° sin, 50 Hz,Th=75°C, double side cooled				550	A
I_{TSM}	Surge on-state current	sine wave, 10 ms, no reverse voltage	125			10	kA
I^2t	I^2t for fusing coordination	10ms, no reverse voltage				500	$A^2s\ 10^3$
V_T	On-state voltage	On-state current = 1400	25			3,5	V
V_T	On-state voltage	On-state current = 1400	125			3,2	V
$V_{T(TO)}$	Threshold voltage		125			1,75	V
r_T	On-state slope resistance					1,00	mohm
SWITCHING ON							
t_{gt}	Gate controlled turn on time	I_T = 1400A; di/dt = 70A/µS	25			10	µs
t_d	Delay time	I_{GM} = 15A, V_D = 1000V	25			3	µs
E_{on}	Turn-on switching energy	VD = 1000V, I_{GM} = 15A, dI_T/dt =70A/usec	125		0,45		J
(di/dt) crit	Critical rate of rise of on-state current	VD = 1000V, I_{GM} = 15A	125			400	A/µs
SWITCHING OFF							
I_{TCM}	Controllable peak on-state current	I_{TC} = I_{TCM}, V_{DM} =1000V R_S = 5ohm, C_S = 3µF, di_{GR}/dt = 30 A/µS Ls = 0.2µH	125			1400	A
t_{gq}	Gate controlled turn-off time					22	µs
t_s	Storage time					20	µs
E_{off}	Turn-off switching energy				1,2		J
I_{RG}	Turn-off reverse gate current				400		A
V_{DSP}	Spike voltage					650	V
TRIGGERING							
V_{GT}	Gate trigger voltage	V_D=24V, R_L = 0.1ohm	25			1,5	V
I_{GT}	Gate trigger current		25			2,0	A
V_{RGM}	Peak reverse gate voltage		125			17	V
I_{RGM}	Peak reverse leakage gate current	V_{RG} = V_{RGM}	125			10	mA
DISSIPATION							
$R_{th(j-h)}$	Thermal resistance junction to heatsink d.c.	Double side cooled				30	°C/kW
T_{vj}	Virtual junction temperature					125	°C
T_{stg}	Storage temperature			-40		125	°C
MOUNTING							
W	Weight				530		g
Ds	Surface creepage distance				25		mm
F	Mounting force			14		17	kN

ORDERING INFORMATION : ATG635 S 25

standard specification — VDRM/100

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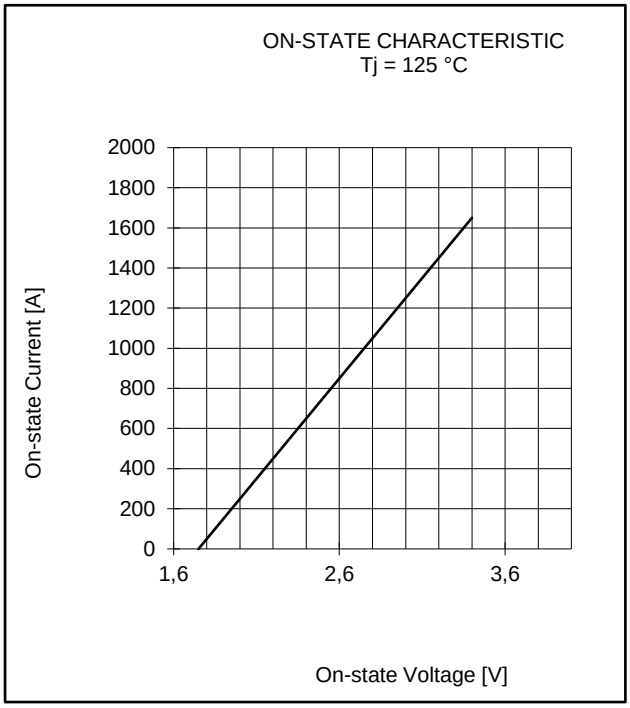

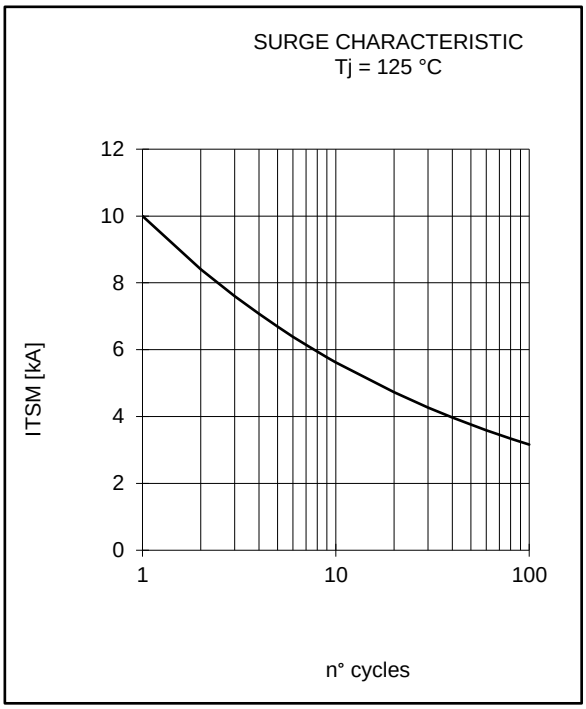

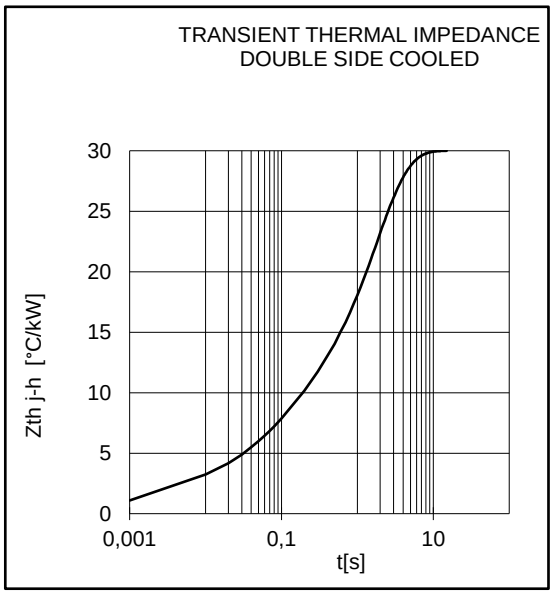

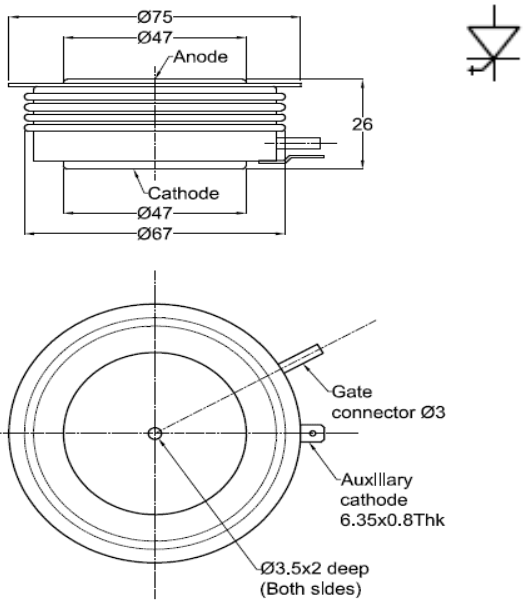

All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness < 0.20 mm and roughness < 2 µm.
In the interest of product improvement POSEICO reserves the right to change any data given in this data sheet at any 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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