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PRESS-PACKED IGBT

AGB1000

Collector-emitter Voltage
Collector current

2500 V
1000 A

TARGET SPECIFICATION

ago 09 - ISSUE : 0

Symbol	Characteristic	Conditions	°C	Value			Unit	
				min	typ	max		
MAXIMUM RATINGS								
V _{CES}	Collector-emitter voltage		125			2500	V	
I _C	Collector current	DC					1000	A
I _{CM}	Repetitive peak collector current	t _p =1ms					2000	A
V _{GES}	Peak gate-emitter voltage			-20		20	V	
P _{TOT}	Collector power dissipation	T _C =25°C				5,55	kW	
I _F	Forward current	DC	125			1000	A	
I _{FM}	Repetitive peak forward current	t _p =1ms					2000	A
T _{JOP}	Operating temperature			-20		125	°C	
T _{STG}	Storage temperature			-40		125	°C	

IGBT CHARACTERISTIC VALUES								
V _{CE(SAT)}	Collector - emitter saturation voltage	I _C = 1000A V _{GE} = 15V	125			5,5	6,0	V
V _F	Diode forward voltage	I _F = 1000A V _{GE} = 0V				2,7	3,2	V
I _{CES}	Collector cut-off current	V _{CE} = 2500V, V _{GE} = 0 V					200	mA
I _{GES}	Gate-emitter leakage current	V _{CE} = 0V V _{GE} = ± 20V			-1		1	µA
V _{GETH}	Gate-emitter threshold voltage	I _C = 1A V _{GE} = V _{CE}			3	4,5	6	V
C _{IES}	Input capacitance	V _{GE} = 0V V _{CE} = 10V f = 100kHz					170	nF
t _r	Rise time	V _{CC} = 1500V I _C = 1000A R _G = 5Ω V _{GE} = ± 15V					0,3	µs
t _{don}	Turn-on delay time						2,2	µs
t _{toff}	Turn-off fall time						0,5	µs
t _{doff}	Turn-off storage time					1,7	µs	
t _{rr}	Diode reverse recovery time		I _F = 1000A V _{GE} = -15V di/dt = 2600A/µs				0,6	ns

THERMAL CHARACTERISTICS							
R _{th(j-c) T}	Thermal resistance (transistor part)	Emitter side cooled				47,5	°C/kW
		Collector side cooled				29,0	°C/kW
		Double side cooled				18,0	°C/kW
R _{th(j-c) D}	Thermal resistance (diode part)	Anode side cooled				125,0	°C/kW
		Cathode side cooled				70,3	°C/kW
		Double side cooled				45,0	°C/kW

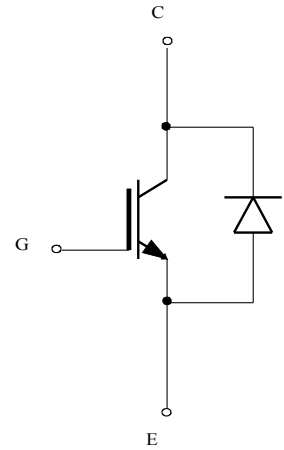
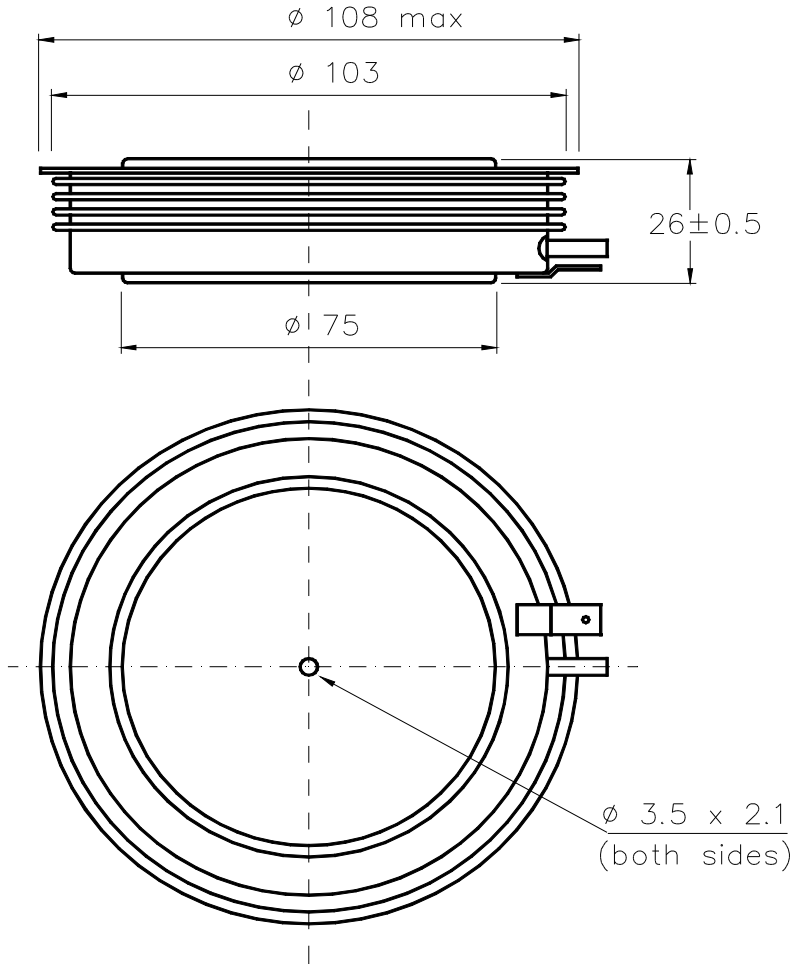
MOUNTING							
W	Weight					1250	g
F	Mounting force				28,3	34,7	kN

ORDERING INFORMATION : AGB1000 S 25

standard specification V_{CES}/100

AGB1000 PRESS-PACKED IGBT

TARGET SPECIFICATION ago 09 - ISSUE : 0



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 POSEICO SpA 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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