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PRESS-PACKED IGBT

AGB1200FI

Collector-emitter Voltage **4500 V**
Collector current **1200 A**

TARGET SPECIFICATION

ago 09 - ISSUE : 0

Symbol	Characteristic	Conditions	Tj °C	Value			Unit
				min	typ	max	
MAXIMUM RATINGS							
V _{CES}	Collector-emitter voltage		125			4500	V
I _c	Collector current	DC				1200	A
I _{CM}	Repetitive peak collector current	tp=1ms				2400	A
V _{GES}	Peak gate-emitter voltage			-20		20	V
P _{TOT}	Collector power dissipation	T _c =25°C				10	kW
I _F	Forward current	NO DIODE INSIDE			-		A
T _{JOP}	Operating temperature			-40		125	°C
T _{STG}	Storage temperature			-40		125	°C

IGBT CHARACTERISTIC VALUES								
V _{CE(SAT)}	Collector - emitter saturation voltage	I _c =1200A V _{CE} =5V	125			4.0	V	
V _F	Diode forward voltage	NO DIODE INSIDE				-	V	
I _{CES}	Collector cut-off current	V _{CE} =4500V, V _{GE} = 0 V	125			100	mA	
I _{GES}	Gate-emitter leakage current	V _{CE} =0V V _{GE} = ±20V			-50		50	nA
V _{GETH}	Gate-emitter threshold voltage	I _c =1,2A V _{GE} =V _{CE}					5.0	V
C _{IES}	Input capacitance	V _{GE} =0V V _{CE} =10V f=100kHz	125			150	nF	
t _r	Rise time	V _{CC} =2700V I _c =1200A R _{gon} =15Ω R _{goff} =7,2Ω					0.8	µs
t _{don}	Turn-on delay time						1.5	µs
E _{on}	Typical turn on energy						8.5	J/pulse
t _{toff}	Turn-off fall time						3.0	µs
t _{doff}	Turn-off storage time						9.0	µs
E _{off}	Typical turn off energy						5.5	J/pulse
t _{rr}	Diode reverse recovery time		NO DIODE INSIDE				-	ns

THERMAL CHARACTERISTICS							
R _{th(j-c)}	Thermal resistance	Emitter side cooled				26	°C/kW
		Collector side cooled				16	°C/kW
		Double side cooled				10	°C/kW

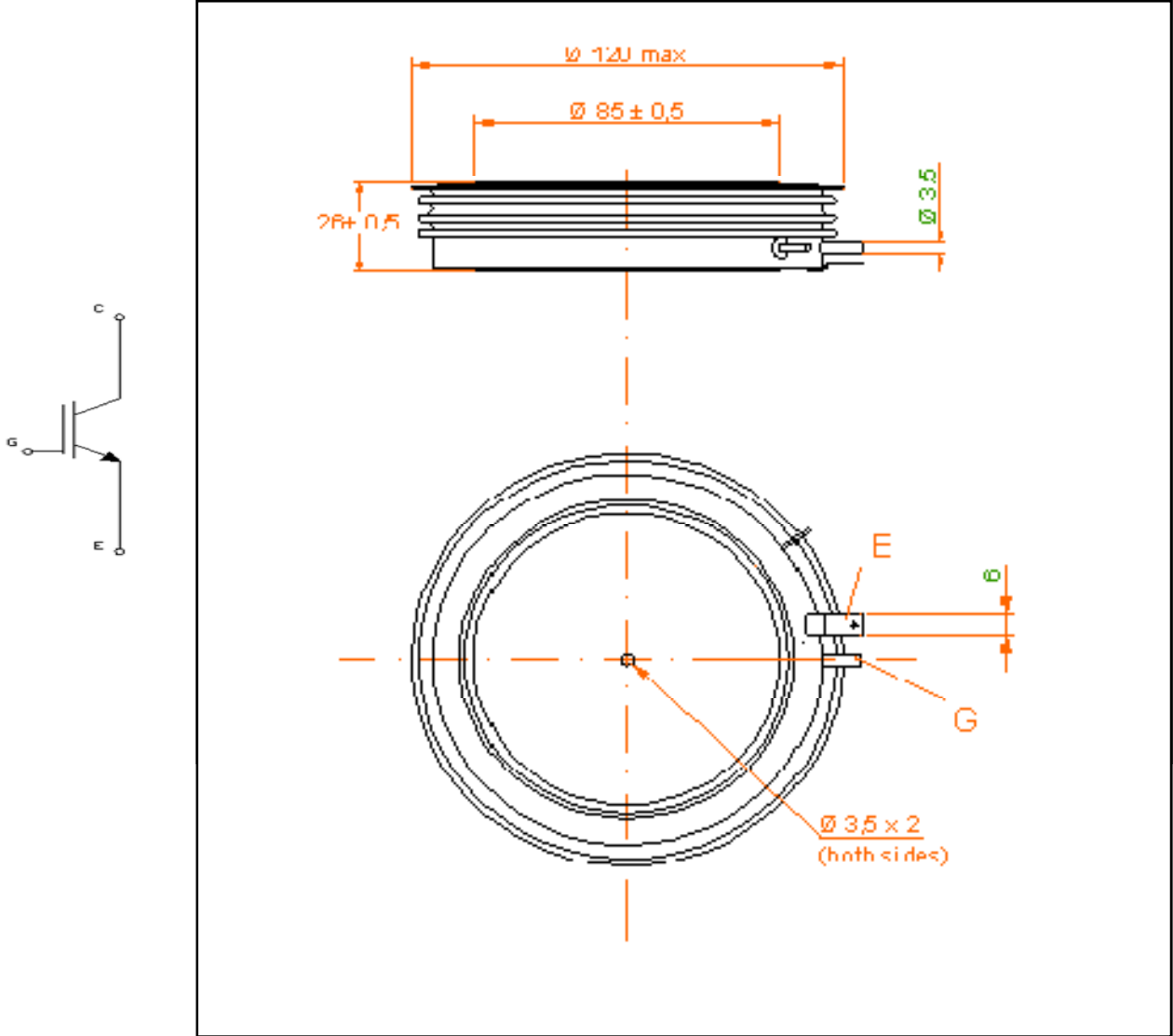
MOUNTING							
W	Weight					2000	g
F	Mounting force				28.0		35.0 kN

ORDERING INFORMATION : AGB1200FI S 45
standard specification _____ VCES/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 $< .03 \text{ mm}$ 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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