

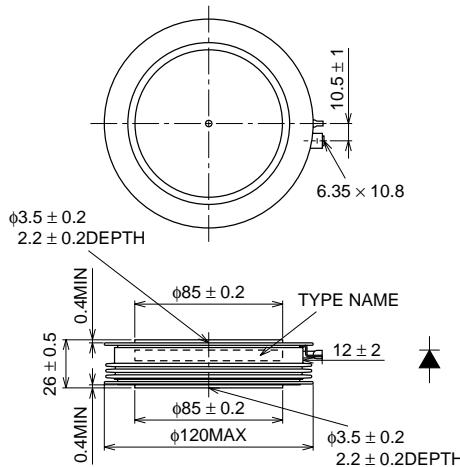
PRELIMINARY
Notice: This is not a final specification.
Some parametric limits are subject to change.

FD5000AV-100DAHIGH-POWER, GENERAL USE
PRESS PACK TYPE**FD5000AV-100DA**

- VR_{RM} Repetitive peak reverse voltage 5000V
- I_{F(AV)} Average forward current 5000A

OUTLINE DRAWING

Dimensions in mm

**APPLICATION**

High-power inverters

Fly-wheel diode for GCT Thyristor

Power supplies as high frequency rectifiers

MAXIMUM RATINGS

Symbol	Parameter	Conditions	Voltage class	Unit
VR _{RM}	Repetitive peak reverse voltage	—	5000	V
VR _{SM}	Non-repetitive peak reverse voltage	—	5000	V
VR(DC)	DC reverse voltage	—	2000	V

Symbol	Parameter	Conditions	Ratings	Unit
I _{F(RMS)}	RMS forward current	Applied for all condition angles	7850	A
I _{F(AV)}	Average forward current	f = 60Hz, sinewave θ = 180°, T _j = 70°C	5000	A
I _{FSM}	Surge forward current		70	kA
I _t ²	Current-squared, time integration	One half cycle at 60Hz, T _j = 150°C start	2.0 × 10 ⁷	A ² s
T _j	Operation junction temperature		-40 ~ 150	°C
T _{stg}	Storage temperature		-40 ~ 150	°C
—	Mounting force required	(Recommended value 47kN)	39 ~ 55	kN
—	Weight	Typical value 1450g	—	g

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
V _{FM}	Forward voltage	I _{FM} = 7000A, T _j = 150°C	—	—	1.6	V
I _{RRM}	Repetitive peak reverse current	V _{RM} = 5000V, T _j = 150°C	—	—	200	mA
R _{th(j-f)}	Thermal resistance	Junction to Fin	—	—	0.0071	K/W

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PERFORMANCE CURVES

