

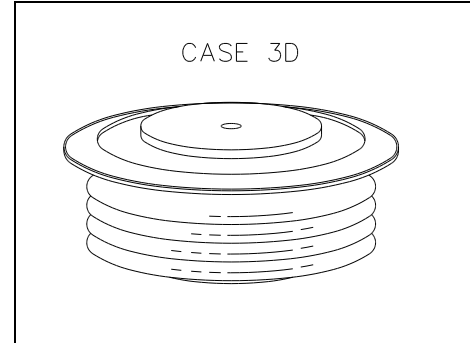
ZP2000A/5400V

(YZPSTRA205420XX)

GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . High Surge rating
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device



ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	V _R RM (1)	V _R SM (1)
ZP2000A	5400	5500

V_{RRM} = Repetitive peak reverse voltage

V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage	I _{RRM}	10 mA 150 mA (3)
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Notes:

All ratings are specified for T_j=25 °C unless otherwise stated.

(1) All voltage ratings are specified for an applied 50Hz/60Hz sinusoidal waveform over the temperature range -40 to +175 °C.

(2) 10 msec. max. pulse width

(3) Maximum value for T_j = 175 °C.

(4) See parameter definition below :

Conducting - on state

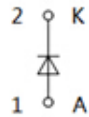
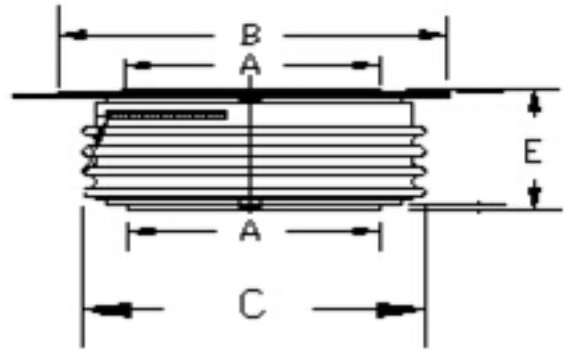
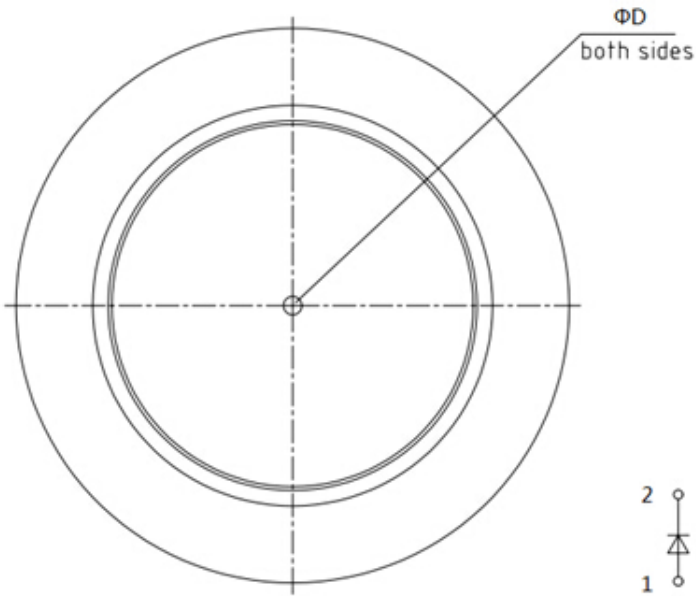
Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Average value of on-state current	I _{F(AV)}		2000		A	Sinewave, 180° conduction, T _c = 90°C
RMS value of on-state current	I _{FRMS}		4700		A	Nominal value
Peak one cycle surge (non repetitive) current	I _{FSM}		26000 24000		A A	8.3 msec (60Hz), sinusoidal wave-shape, 180° conduction, T _j = 175 °C 10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T _j = 175 °C
Peak on-state voltage	V _{FM}		1.45		V	I _{FM} = 3000 A;
Reverse Recovery Current (4)	I _{RM(REC)}		*		A	
Reverse Recovery Charge (4)	Q _{rr}		*		μC	
Reverse Recovery Time (4)	t _{RR}		*		μs	
I square t	I ² t		20.8x10 ⁶		A ² s	10.0 msec

● For guaranteed maximum values, contact factory

Parameter	Symb ol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+175		°C	
Storage temperature	T_{stg}	-40	+185		°C	
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.040 0.080		°C/W	Double sided cooled Single sided cooled
Thermal resistance - case to sink	$R_{\Theta(c-s)}$.015 .030		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P	7000	9000		lb.	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS.



- A: 63 mm
- B: 98 mm
- C: 88 mm
- E: 32 mm