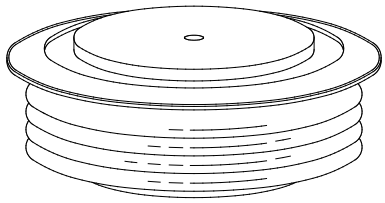
Standard Rectifier------ZP5000A/2000V

GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

Features:

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

CASE 4D



Typical Applications:

- . Rectifier for Drives Applications
- . Medium voltage converters
- . Pulsed power applications
- . Crowbar Applications

ELECTRICAL CHARACTERISTICS AND RATINGS

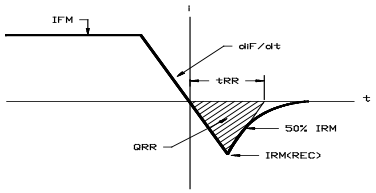
Reverse Blocking

V_{RRM} (1)	V_{RSM} (1)
2000	2100

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

Repetitive peak reverse leakage	I_{RRM}	15 mA 100 mA

Notes:
All ratings are specified for Tj=25 °C unless otherwise stated.



REVERSE RECOVERY CHARACTERISTIC

Conducting - on state

Parameter	Symbol	Min	Max.	Typ	Units	Conditions
Max. Average value of on-state current	$I_{F(AV)M}$		5000		A	Sinewave,180°conduction,T_c=100°C
RMS value of on-state current	I_{FRMS}		7050		A	Nominal value
Peak one cycle surge (non repetitive) current	I_{FSM}		62		kA	T_j=150°C, V_R=0,8V_{RRM}, t_p=10ms
I square t	I^2t		$23x10^3$		kA^2s	10 msec
Peak on-state voltage	V_{FM}		0.95		V	I_{FM} = 2000 A; Tj = 25 °C
Reverse Recovery Current (4)	$I_{RM(REC)}$		290		A	I_{FM} = 1000 A; dI_F/dt = 10 A/µs, T_j = 160 °C
Reverse Recovery Charge (4)	Q_{rr}		-		µC	
Reverse Recovery Time (4)	t_{RR}		-		µs	

***** For guaranteed maximum values, contact factory

THERMAL AND MECHANICAL CHARACTERISTICS

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-55	+150		°C	
Storage temperature	T_{stg}	-55	+150		°C	

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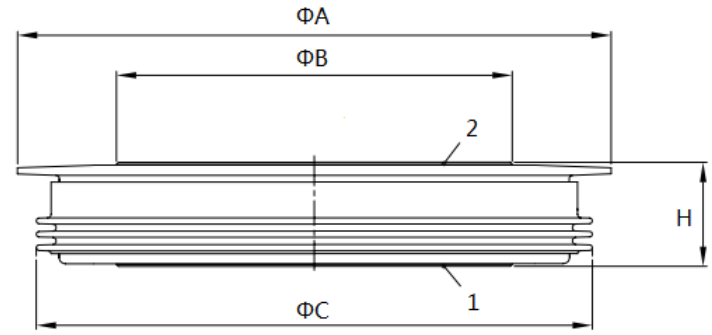
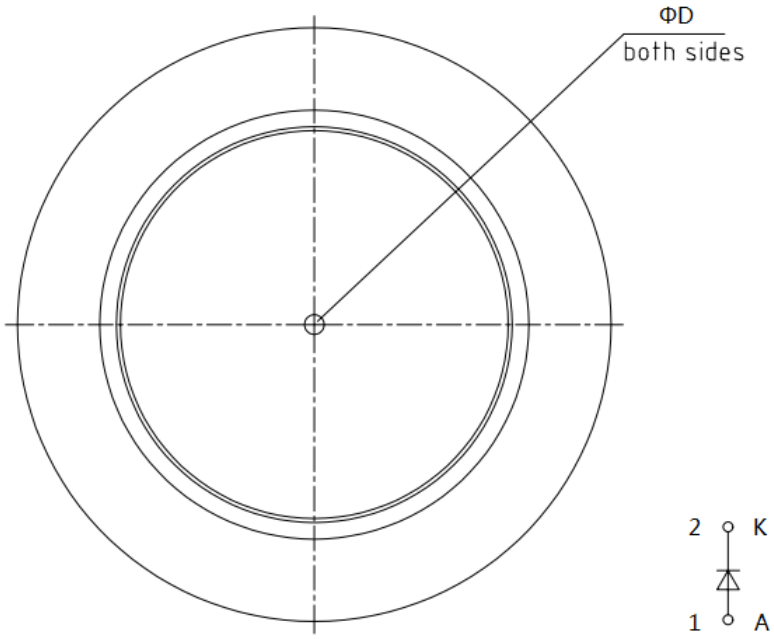
Thermal resistance - junction to case	$R_{\Theta (j-c)}$		12 24		°C/kW	Double sided cooled Single sided cooled
Thermal resistance - case to sink	$R_{\Theta (c-s)}$		2 4		°C/kW	
Mounting force	P	63	77		kN	
Weight	W			-	g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS





Sym	A	B	C	D	H
mm	118	84	110	3.5×3	35±1

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