

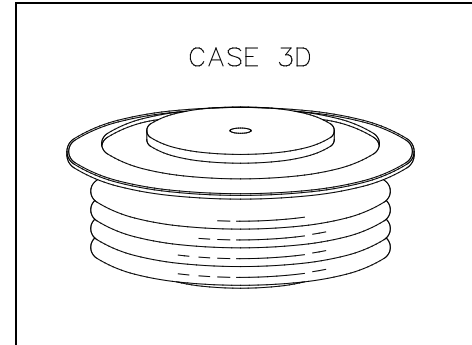
ZP1060A6000V - Standard Rectifier

6000 V_{RRM} ; 700 A avg

GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . High Surge rating
- . Blocking capability up to 6000 volts
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device



ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	V_{RRM} (1)	V_{RSM} (1)
ZP1060A6000V	6000	6000

V_{RRM} = Repetitive peak reverse voltage

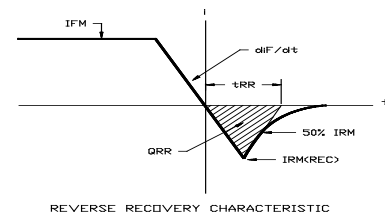
V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage	I_{RRM}	20 mA 50 mA (3)
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Notes:

All ratings are specified for $T_j = 25^\circ\text{C}$ unless otherwise stated.

(1) All voltage ratings are specified for an applied 50Hz/60Hz sinusoidal waveform over the



Conducting - on state

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Average value of on-state current	$I_{F(AV)1}$		700		A	Sinewave, 180° conduction, $T_c = 90^\circ\text{C}$
Average value of on-state current	$I_{F(AV)2}$		1060		A	Sinewave, 180° conduction, $T_c = 50^\circ\text{C}$
RMS value of on-state current	I_{FRMS}		1099		A	Nominal value
Peak one cycle surge (non repetitive) current	I_{FSM}		9300		A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction,

I square t	I^2t		520000		A ² s	8.3 msec and 10.0 msec
Peak on-state voltage	V_{FM}		2.1		V	$I_{FM} = 1500A$; Duty cycle $\leq 0.01\%$
Reverse Recovery Current (4)	$I_{RM(REC)}$		*		A	
Reverse Recovery Charge (4)	Q_{rr}		*		μC	
Reverse Recovery Time (4)	t_{RR}		*		μs	

* For guaranteed maximum values, contact factory

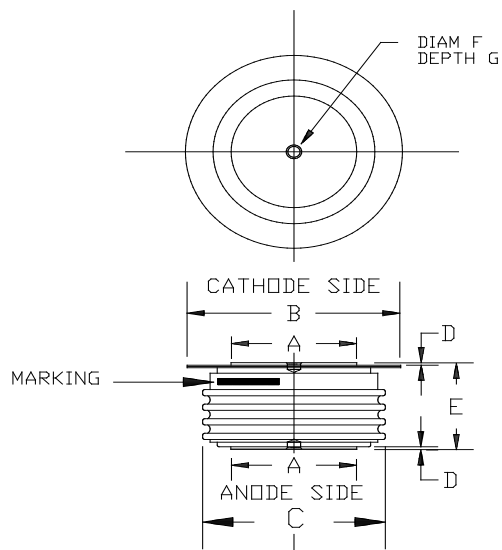
Technical Data : PST-005

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THERMAL AND MECHANICAL CHARACTERISTICS ZP1060A/6000V - Standard Rectifier

Parameter	Symb ol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+160		°C	
Storage temperature	T_{stg}	-40	+160		°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	$R_{\Theta(c-s)}$		0.015 0.030		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P		19.9		kN	
		15.5				
Weight	W			250	g	

Mounting surfaces smooth, flat and greased



OUTLINE DIMENSIONS - CASE 3D				
DIMENSIONS	Min. mm	Max. mm	Min. In.	Max. In.
DIAM A	33.02	34.29	1.30	1.35
DIAM B	55.88	63.50	2.20	2.50
DIAM C	--	54.61	--	2.15
D	0.76	--	0.03	--
E	25.40	27.18	1.00	1.07
F	3.30	3.81	0.13	0.15
G	1.78	2.03	0.07	0.08

STRIKE DISTANCE = .73 INCH / 18.5 MM MIN.
CREEPAGE DISTANCE = 1.17 INCH / 29.7 MM MIN.