ZP7600A

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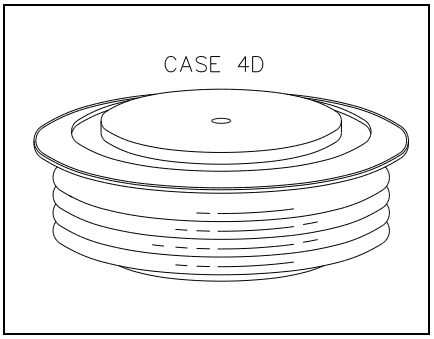


HIGH POWER FAST RECOVERY RECTIFIER

Features:

- **. All Diffused Structure**
- **. Fast Switching Performance**
- **. Soft Reverse Recovery**
- **. Rugged Ceramic Hermetic Package**
- **. Pressure Assembled Device**

ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	V_{RRM} (1)	V_{RSM} (1)
ZP7600A	2200	2300

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

Notes:
All ratings are specified for Tj=25 °C unless otherwise stated.
(1) All voltage ratings are specified for an applied 50Hz/60zHz sinusoidal waveform over the temperature range -40 to +150 °C.
(2) 10 msec. max. pulse width
(3) Maximum value for Tj = 150 °C.
(4) See parameter definition below :

Repetitive peak reverse leakage	I_{RRM}	10 mA 75 mA (3)

Conducting - on state

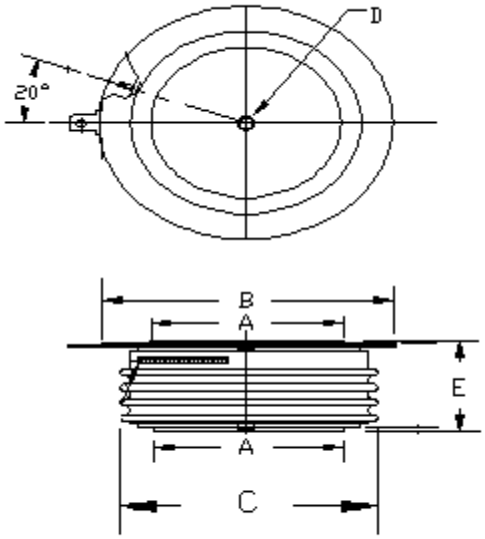
Parameter	Symbol	Min	Max.	Typ	Units	Conditions
Average value of on-state current	$I_{F(AV)}$		7600		A	Sinewave,180° conduction,T_c =70°C
RMS value of on-state current	I_{FRMS}		12000		A	Nominal value
Peak one cycle surge (non repetitive) current	I_{FSM}		75000 68000		A A	8.3 msec (60Hz), sinusoidal wave-shape, 180° conduction, T_j = 150 °C 10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T_j = 150 °C
I square t	I^2t		$2.8x10^6$		A^2s	8.3 msec and 10 msec
Peak on-state voltage	V_{FM}		0.99		V	I_{FM} = 3000 A;
Reverse Recovery Current (4)	$I_{RM(REC)}$				A	I_{FM} = 1000 A; dI_F/dt = 10 A/µs; Tjmax
Reverse Recovery Charge (4)	Q_{rr}				µC	I_{FM} = 1000 A; dI_F/dt = 10 A/µs; Tjmax
Reverse Recovery Time (4)	t_{RR}		*		µs	

* For guaranteed maximum values, contact factory

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T_j	-40	+150		^oC	
Storage temperature	T_{stg}	-40	+150		^oC	
Thermal resistance - junction to case	$R_{\theta (j-c)}$		0.023 0.046		$^oC/W$	Double sided cooled Single sided cooled
Thermal resistance - case to sink	$R_{\theta (c-s)}$		.010 .020		$^oC/W$	Double sided cooled * Single sided cooled *
Mounting force	P	8000	10000		lb.	
Weight	W				oz. g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS



A: 100 mm
B: 142 mm
C: 131 mm
E: 36 mm