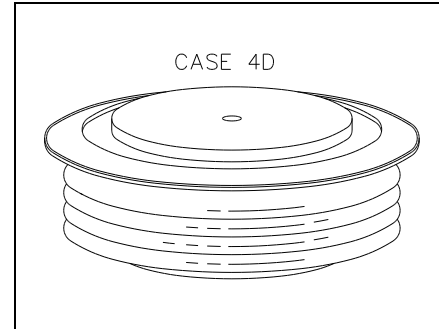

GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . High Surge rating
- . Blocking capability up to 5000 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)
ZP1700A4400V	4400	4500
ZP1700A4600V	4600	4700
ZP1700A4800V	4800	4900
ZP1700A5000V	5000	5100

V_{RRM} = Repetitive peak reverse voltage

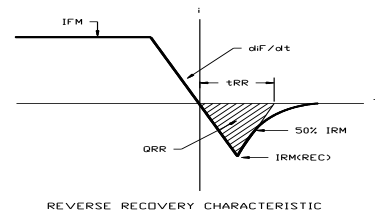
V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage	I _{RRM}	10 mA 70 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.



REVERSE RECOVERY CHARACTERISTIC

Conducting - on state

Parameter	Symbol	Min.	Max.	Typ	Units	Conditions
Average value of on-state current	I _{F(AV)}		1700		A	Sinewave, 180° conduction, T _c = 100°C
RMS value of on-state current	I _{FRMS}		2800		A	Nominal value
Peak one cycle surge (non repetitive) current	I _{FSM}		25000		A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T _j = 175 °C
I square t	I ² t		2.6x10 ⁶		A ² s	8.3 msec and 10 msec
Peak on-state voltage	V _{FM}		2.60		V	I _{FM} = 6000 A; Duty cycle ≤ 0.01%; T _j = 25 °C
Reverse Recovery Current (4)	I _{RM(REC)}		250		A	I _{FM} = 1000 A; dI _F /dt = 10 A/μs, T _j = 160 oC
Reverse Recovery Charge (4)	Q _{rr}		*		μC	
Reverse Recovery Time (4)	t _{RR}		*		μs	

* For guaranteed maximum values, contact factory

Parameter	Symb ol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T _j	-40	+1160		°C	
Storage temperature	T _{stg}	-40	+175		°C	
Thermal resistance - junction to case	R _{θ(j-c)}		0.023 0.046		°C/W	Double sided cooled Single sided cooled
Thermal resistance - case to sink	R _{θ(c-s)}		.010 .020		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P	5000 22.3	6000 26.7		lb. kN	
Weight	W			16 460	oz. g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS

