

ZH2600A/8000V– Standard Recovery Rectifier
8000 V_{RRM}; 2600A avg

HIGH POWER STANDARD RECOVERY RECTIFIER

Features:

- . All Diffused Structure
- . Blocking capability up to 8000 volts
- . Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device

ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	V _{RRM} (1)	V _{RSM} (1)
ZH2600A/8000V	8000	8000

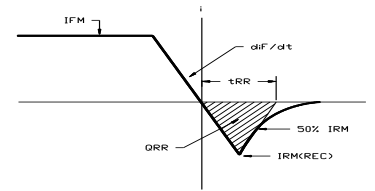
V_{RRM} = Repetitive peak reverse voltage
 V_{RSM} = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage	I _{RRM}	20 mA 150mA (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/60zHz sinusoidal waveform over the temperature range -40 to +140 °C.
- (2) 10 msec. max. pulse width
- (3) Maximum value for T_j = 140 °C.



REVERSE RECOVERY CHARACTERISTIC

Conducting - on state

Parameter	Symbol	Min	Max.	Typ	Units	Conditions
Average value of on-state current	I _{F(AV)}		2600		A	Sinewave, 180° conduction, T _c = 90°C
RMS value of on-state current	I _{FRMS}		4080		A	Nominal value
Peak one cycle surge (non repetitive) current	I _{FSM}		50000		A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T _j = 140 °C
I square t	I ² t		12.5x10 ⁶		A ² s	10 msec
Peak on-state voltage	V _{FM}		5.2		V	I _{FM} = 4000 A; Duty cycle ≤ 0.01%; T _{jmax}
Reverse Recovery Current (4)	I _{RM(REC)}		2000		A	I _{FM} = 2500 A; dI _F /dt = 1000 A/μs; T _{jmax}
Reverse Recovery Charge (4)	Q _{rr}		12000		μC	I _{FM} = 2500 A; dI _F /dt = 1000 A/μs; T _{jmax}
Reverse Recovery Time (4)	t _{RR}					

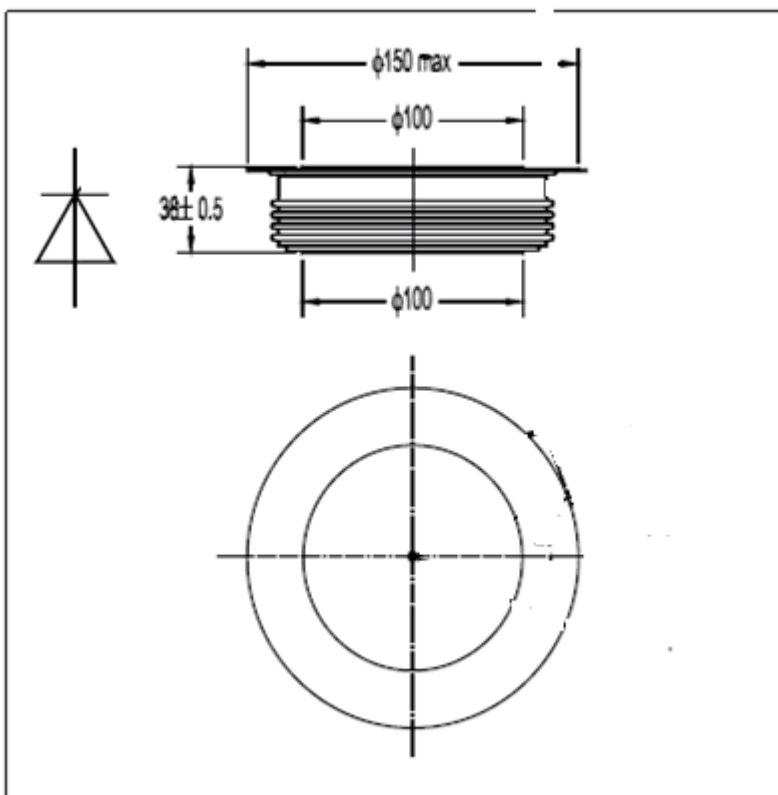
* For guaranteed maximum values, contact factory

THERMAL AND MECHANICAL CHARACTERISTICS
ZH2600A/8000V– Standard Recovery Rectifier

Parameter	Symb ol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T _j	-40	+140		°C	
Storage temperature	T _{stg}	-40	+150		°C	
Thermal resistance - junction to case	R _{θ(j-c)}		0.0048		°C/W	Double sided cooled
Thermal resistance - case to sink	R _{θ(c-s)}		0.0015		°C/W	Double sided cooled * *
Mounting force	P	63	90		kN	
Weight	W			2500	g	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS



ZH2600A/8000V– Standard Recovery Rectifier