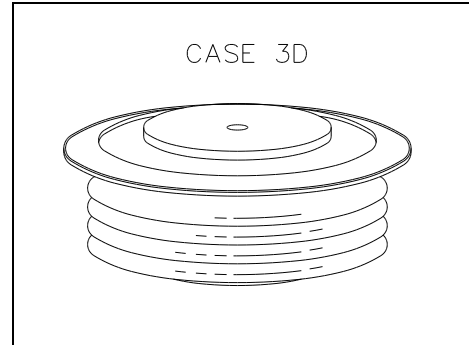


P S T ZH700A/7000V - Standard

Rectifier

7000 VRRM; 700 A avg



GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

Features:

- . All Diffused Structure
- . High Surge rating
- . Blocking capability up to 7000 volts
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device

ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	VRRM (1)	VRRM (1)
ZH700A/7000V	70000	7000

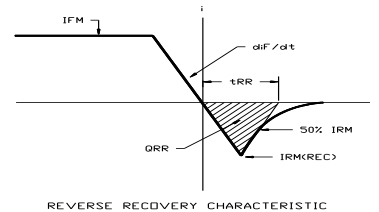
VRRM = Repetitive peak reverse voltage
VRRM = Non repetitive peak reverse voltage (2)

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

All ratings are specified for T_j=25 °C unless otherwise stated.

- (1) All voltage ratings are specified for an applied 50Hz/60Hz sinusoidal waveform over the temperature range -40 to +160 °C.
- (2) 10 msec. max. pulse width
- (3) Maximum value for T_j =160 °C.
- (4) See parameter definition below :



Conducting - on state

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Average value of on-state current	I _{F(AV)}		700		A	Sinewave, 180° conduction, T _c =90°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 ² t		520000		A ² s	8.3 msec and 10.0 msec
Peak on-state voltage	V _{FM}		2.1		V	I _{FM} =1200A; Duty cycle ≤ 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

THERMAL AND MECHANICAL CHARACTERISTICS ZH700A/7000V - 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	
Weight	W	15.5		250	g	

Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS.

