



高端电力电子器件和装置制造商

## ZP7100 - 焊接二极管

### 200-400 V<sub>DRM</sub>

#### 焊接二极管

特性：

- \* 扩散工艺
- \* 大电流特性
- \* 低压降
- \* 陶瓷管壳封装
- \* 极低热阻值

#### 电学特性值



#### Reverse Blocking

Device Type	V <sub>RRM</sub> (1)	V <sub>RSM</sub> (1)
ZP7100 -02	200	300
ZP7100 -04	400	450

V<sub>RRM</sub> = Repetitive peak reverse voltage

V<sub>RSM</sub> = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage current	I <sub>RRM</sub>	15 mA 50 mA (3)

Notes:

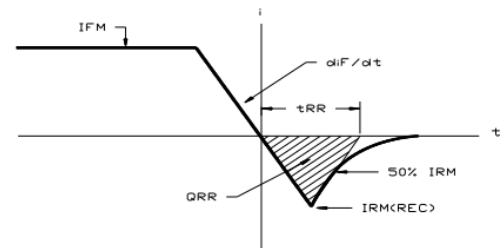
All ratings are specified for T<sub>j</sub>=25 °C, unless otherwise stated

(1) Sine half wave, f=50Hz, T<sub>j</sub> = -40 to +170°C.

(2) Sine half wave, Pulse width 10 msec. T<sub>j</sub> = -40 to +170°C.

(3) Maximum value for T<sub>j</sub> = 170 °C.

(4) See parameter definition below :



REVERSE RECOVERY CHARACTERISTIC

#### Conducting - on state

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Average forward current	I <sub>F(AV)</sub>		7100		A	Sinewave 180°, T <sub>c</sub> =85°C
RMS forward current	I <sub>FRMS</sub>		11200		A	
Peak one cycle surge (non repetitive) current	I <sub>FSM</sub>		55000		A	Pulse width 10 msec, sinusoidal wave-shape, 180° conduction, T <sub>j</sub> = 170 °C
I square t	I <sup>2</sup> t		15100		KA <sup>2</sup> s	Pulse width 10 msec, sinusoidal wave-shape, T <sub>j</sub> = 170 °C
Peak forward voltage	V <sub>FM</sub>		1.05		V	I <sub>FM</sub> = 5000A; 25 °C
Threshold voltage	V <sub>TO</sub>		0.74		V	T <sub>j</sub> = 170 °C
Slope resistance	r <sub>T</sub>		0.026		mΩ	T <sub>j</sub> = 170 °C
Reverse Recovery Current (4)	I <sub>RM(REC)</sub>				A	I <sub>FM</sub> = 1000 A; dI <sub>F</sub> /dt = 10 A/μs; T <sub>j</sub> max
Reverse Recovery Charge (4)	Q <sub>rr</sub>				μC	I <sub>FM</sub> = 1000 A; dI <sub>F</sub> /dt = 10 A/μs; T <sub>j</sub> max
Reverse Recovery Time (4)	t <sub>rr</sub>				μs	I <sub>FM</sub> = 1000 A; dI <sub>F</sub> /dt = 10 A/μs; T <sub>j</sub> max

\* For guaranteed maximum values, contact factory

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	$T_j$	-40	+170		°C	
Storage temperature	$T_{stg}$	-40	+170		°C	
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.01		°C/W	Double sided cooled
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.02		°C/W	Single sided cooled
Creepage distance	$D_s$		4		mm	
Air breakdown distance	$D_a$		4		mm	
Mounting force	F			24	kN	
Weight	W			140	g	

\* Mounting surfaces smooth, flat and greaseless

外形图

