



高端电力电子器件和装置制造商

## ZP13500 - 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)
ZP13500 -02	200	300
ZP13500 -04	400	450

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

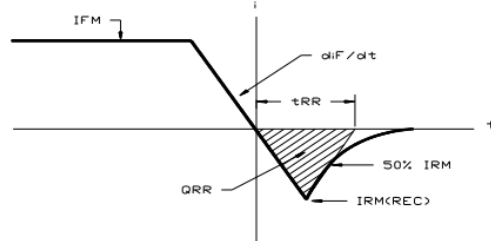
V<sub>RSM</sub> = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage current	I <sub>RRM</sub>	10 mA 75 mA (3)
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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 +180°C.
- (2) Sine half wave, Pulse width 10 msec. T<sub>j</sub> = -40 to +180°C.
- (3) Maximum value for T<sub>j</sub> = 180 °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>		13500		A	Sinewave 180°, T <sub>c</sub> =85°C
RMS forward current	I <sub>FRMS</sub>		21200		A	
Peak one cycle surge (non repetitive) current	I <sub>FSM</sub>		85000		A	Pulse width 10 msec, sinusoidal wave-shape, 180° conduction, T <sub>j</sub> = 180 °C
I square t	I <sup>2</sup> t		36100		KA <sup>2</sup> s	Pulse width 10 msec, sinusoidal wave-shape, T <sub>j</sub> = 180 °C
Peak forward voltage	V <sub>FM</sub>		0.97		V	I <sub>FM</sub> = 5000A; 25 °C
Threshold voltage	V <sub>TO</sub>		0.76		V	T <sub>j</sub> = 180 °C
Slope resistance	r <sub>T</sub>		0.021		mΩ	T <sub>j</sub> = 180 °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

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	$T_j$	-40	+180		°C	
Storage temperature	$T_{stg}$	-40	+180		°C	
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.0039		°C/W	Double sided cooled
Thermal resistance - junction to case	$R_{\Theta(j-c)}$		0.026		°C/W	Single sided cooled
Creepage distance	$D_s$		2		mm	
Air breakdown distance	$D_a$		2		mm	
Mounting force	F	35	40	35	kN	
Weight	W			140	g	

\* Mounting surfaces smooth, flat and greaseless

外形图

