# YJ Planar Fast Recovery Diode Die Specification

400V 10A, Fast recovery diode die based on silicon planar process Part No.: FRD10A400AS-290A

## **Main Products Characterstics**

- Average forward current: IF(AV) = 10A
- Maximum operating junction temperature: Tj = 150 °C
- Planar Construction
- Top metal: Al



### Maximum Ratings

Parameter	Symbol	Rating
Repetitive peak reverse voltage	V <sub>RRM</sub>	400V
Average forward current	I <sub>F(AV)</sub>	10A
Non-repetitive peak surge current (tp = 8.3 ms, halfwave, 1 cycle)	I <sub>FSM</sub>	100A
Storage temperature range	T <sub>stg</sub>	-40 to +150 °C
Maximum operating junction temperature	Тj	150 °C

#### Static Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Value	
		Spec	Typical
Reverse breakdown voltage I <sub>R</sub> = 50uA	$V_{BR}$	420V	440V
Maximum forward voltage drop I_F = 10A, Pulse Test: tp = 380 $\mu s, \; \delta \leqslant 2\%$	V <sub>F</sub>	1.25V	1.15V
Reverse Recovery Time I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A	Trr	35ns	28ns
Maximum reverse current $V_R = V_{RRM}$ Pulse Test: tp = 10 ms, $\delta \le 2\%$	I <sub>R</sub>	2uA	0.02uA

## **Device Schematics and Outline Drawing**



#### **Important Notice**

Specification apply to die only. Actual performance may degrade when assembled.	Recommended Storage Environment:
Yangjie Electronics does not guarantee device performance after assembly. All operating parameters must be validated for each customer application by customer's technical experts.	Store in original container, in dessicated nitrogen, with no contamination.
	Shelf life for parts stored in above condition is 2 years.
Data sheet information is subjected to change without notice.	If the storage is done in normal atmosphere shelf life is reduced to 6 months.

扬州扬杰电子科技股份有限公司 电话: 0514-80982389 Yangzhou Yangjie Electronics Technology Co.,Ltd. 传真: 0514-80980189

Yangzhou Yangjie Electronics Technology Co., Ltd.