

# YJ Planar Fast Recovery Diode Die Specification

600V 8A, Fast recovery diode die based on silicon planar process

Part No.: FRD08B600AS-290L

## Main Products Characteristics

### Maximum Ratings

Parameter	Symbol	Rating
Repetitive peak reverse voltage	$V_{RRM}$	600V
Average forward current	$I_{F(AV)}$	8A
( $t_p = 8.3$ ms, halfwave, 1 cycle)	$I_{FSM}$	120A
Storage temperature range	$T_{stg}$	-40 to +150 °C
Maximum operating junction temperature	$T_j$	150 °C

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

Parameter	Symbol	Value	
		Spec	Typical
Reverse breakdown voltage $I_R = 50\mu A$	$V_{BR}$	630V	680V
Maximum forward voltage drop $I_F$	$V_F$	1.3V	1.05V
	2%		
Reverse Recovery Time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$	$T_{rr}$	75ns	42ns
Maximum reverse current $V_R = V_{RRM}$	$I_R$	2uA	0.02uA
	2%		

## Device Schematics and Outline Drawing

Die Thickness	290um
Die Size *	2250x2250um
Top Metal Pad	1522x1522um
Active Area	1452x1452um
Top Metal	Al
Back Metal	Ag

Note: 1 \*: Cutting street width is around 40um

## Important Notice

Specification apply to die only. Actual performance may degrade when assembled.

does not guarantee device performance after assembly.

All operating parameters must be validated for each customer application by customer's technical experts.

Data sheet information is subjected to change without notice.

Recommended Storage Environment:

Store in original container, in dessicated nitrogen, with no contamination.

Shelf life for parts stored in above condition is 2 years.

If the storage is done in normal atmosphere shelf life is reduced to 6 months.

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