# YJ Planar Fast Recovery Diode Die Specification

**600V 8A, Fast recovery diode die based on silicon planar process**
**Part No.: FRD08B600AS-290L**

## Main Products Characterstics

### Maximum Ratings

| Parameter | Symbol | Rating |
|---|---|---|
| Repetitive peak reverse voltage | $V_{RRM}$ | 600V |
| Average forward current | $I_{F(AV)}$ | 8A |
| (tp = 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<br>$I_R$ = 50uA | $V_{BR}$ | 630V | 680V |
| Maximum forward voltage drop<br>$I_F$ ≤ 2% | $V_F$ | 1.3V | 1.05V |
| Reverse Recovery Time<br>$I_F$=0.5A, $I_R$=1A, $I_{rr}$=0.25A | Trr | 75ns | 42ns |
| Maximum reverse current $V_R$ = $V_{RRM}$<br>≤ 2% | $I_R$ | 2uA | 0.02uA |

## 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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