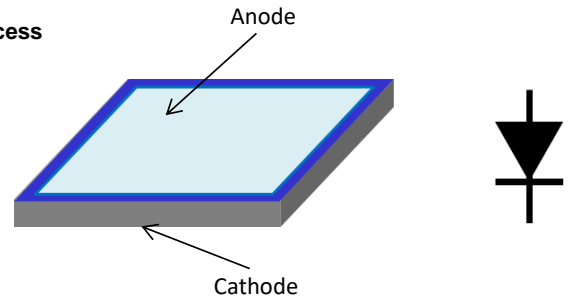


# YJ Planar Schottky Barrier Diode Die Specification

200V 20A, 102mil, Schottky barrier diode die based on silicon planar process  
Part No.: PSB102H200AS-280A

## Main Products Characteristics

- Average forward current:  $I_{F(AV)} = 20\text{ A}$
- Maximum operating junction temperature:  $T_j = 175\text{ }^\circ\text{C}$
- ESD rating: >2KV, per IEC61000-4-2 (Contact Discharge)
- Top metal: AL



## Maximum Ratings

| Parameter   | Symbol      | Rating                       |
|---|-------------|------------------------------|
| Repetitive peak reverse voltage   | $V_{RRM}$   | 200 V                        |
| Average forward current   | $I_{F(AV)}$ | 20 A                         |
| Non-repetitive peak surge current<br>( $t_p = 8.3\text{ ms}$ , halfwave, 1 cycle) | $I_{FSM}$   | 150 A                        |
| Storage temperature range   | $T_{stg}$   | -50 to +175 $^\circ\text{C}$ |
| Maximum operating junction temperature  | $T_j$       | 175 $^\circ\text{C}$         |

## Static Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

| Parameter   | Symbol   | Value |         |
|---|----------|-------|---------|
|   |          | Spec  | Typical |
| Reverse breakdown voltage<br>$I_R = 1\text{ mA}$  | $V_{BR}$ | 210 V | 230V    |
| Maximum forward voltage drop<br>$I_F = 20\text{ A}$<br>Pulse Test: $t_p = 300\text{ }\mu\text{s}$ , $\delta \leq 2\%$ | $V_F$    | 0.92V | 0.88V   |
| Maximum reverse current<br>$V_R = V_{RRM}$<br>Pulse Test: $t_p = 300\text{ }\mu\text{s}$ , $\delta \leq 2\%$          | $I_R$    | 3uA   | 0.3uA   |

## Device Schematics and Outline Drawing

|                   |                  |
|-------------------|------------------|
| Die Thickness *   | 11 Mils          |
| Die Size **       | 102 Mils         |
| Top Metal Pad     | 2*48.6*98 Mils   |
| Active Area       | 2*43.8*93.4 Mils |
| Space between die | 0.98 Mils        |
| Top Metal         | AL               |
| Back Metal        | Ag               |

Note: 1 \* : Also can offer device with 8 mils thickness  
2 \*\* : Cutting street width is around 1.5 mils

## Important Notice

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