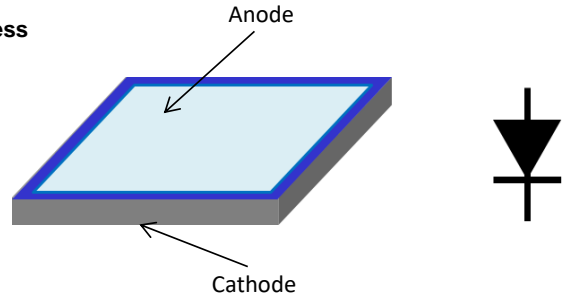


YJ Planar Schottky Barrier Diode Die Specification

45V 15A, 138mil, Schottky barrier diode die based on silicon planar process
Part No.: PSB138M045SS-290A

Main Products Characteristics

- Average forward current: $I_{F(AV)} = 15\text{ A}$
- Maximum operating junction temperature: $T_j = 150\text{ }^\circ\text{C}$
- ESD rating: >15KV, per IEC61000-4-2 (Contact Discharge)
- Top metal: Ag



Maximum Ratings

| Parameter | Symbol | Rating |
|---|-------------|------------------------------|
| Repetitive peak reverse voltage | V_{RRM} | 45 V |
| Average forward current | $I_{F(AV)}$ | 15 A |
| Non-repetitive peak surge current ($t_p = 8.3\text{ ms}$, halfwave, 1 cycle) | I_{FSM} | 320 A |
| Storage temperature range | T_{stg} | -50 to +150 $^\circ\text{C}$ |
| Maximum operating junction temperature | T_j | 150 $^\circ\text{C}$ |

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

| Parameter | Symbol | Value | |
|---|----------|-------|---------|
| | | Spec | Typical |
| Reverse breakdown voltage $I_R = 1\text{ mA}$ | V_{BR} | 50 V | 54V |
| Maximum forward voltage drop $I_F = 15\text{ A}$ Pulse Test: $t_p = 300\text{ }\mu\text{s}$, $\delta \leq 2\%$ | V_F | 0.50V | 0.46V |
| Maximum reverse current $V_R = V_{RRM}$ Pulse Test: $t_p = 300\text{ }\mu\text{s}$, $\delta \leq 2\%$ | I_R | 150uA | 90uA |

Device Schematics and Outline Drawing

| | |
|-----------------|-----------|
| Die Thickness * | 11.4 Mils |
| Die Size ** | 138 Mils |
| Top Metal Pad | 133 Mils |
| Active Area | 129 Mils |
| Top Metal | Ag |
| 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>Yangjie Electronics 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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