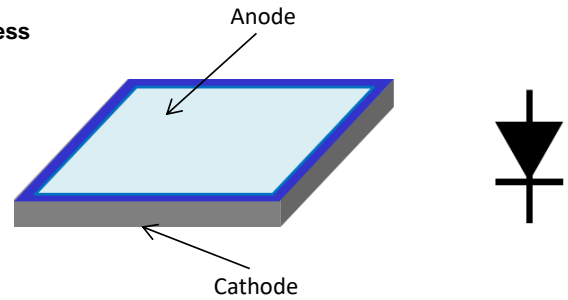


# YJ Planar Schottky Barrier Diode Die Specification

45V 30A, 150mil, Schottky barrier diode die based on silicon planar process  
Part No.: PSB150M045SS-290A

## Main Products Characteristics

- Average forward current:  $I_{F(AV)} = 30\text{ A}$
- 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	$I_{F(AV)}$	30 A
Non-repetitive peak surge current ( $t_p = 8.3\text{ ms}$ , halfwave, 1 cycle)	$I_{FSM}$	350 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 $I_F = 30\text{ A}$ Pulse Test: $t_p = 300\text{ }\mu\text{s}$ , $\delta \leq 2\%$	$V_F$	0.55V	0.52V
Maximum reverse current $V_R = V_{RRM}$ Pulse Test: $t_p = 300\text{ }\mu\text{s}$ , $\delta \leq 2\%$	$I_R$	150uA	80uA

## Device Schematics and Outline Drawing

Die Thickness *	11.4 Mils
Die Size **	150 Mils
Top Metal Pad	144 Mils
Active Area	140 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><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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