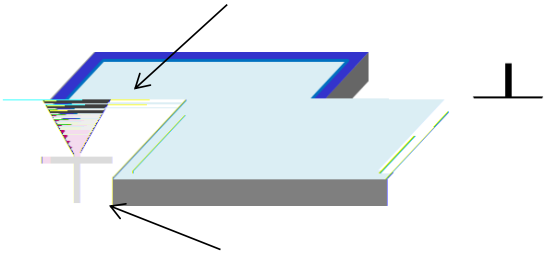
YJ Planar Schottky Barrier Diode Die Specification

40V 2A, 45mil, Schottky barrier diode die based on silicon planar process
Part No.: PSB045S040SS-280A



Main Products Characterstics

- Average forward current: IF(AV) = 2 A
- Maximum operating junction temperature: Tj = 175 °C
- ESD rating: >8KV, per IEC61000-4-2 (Contact Discharge)
- Top metal: Ag

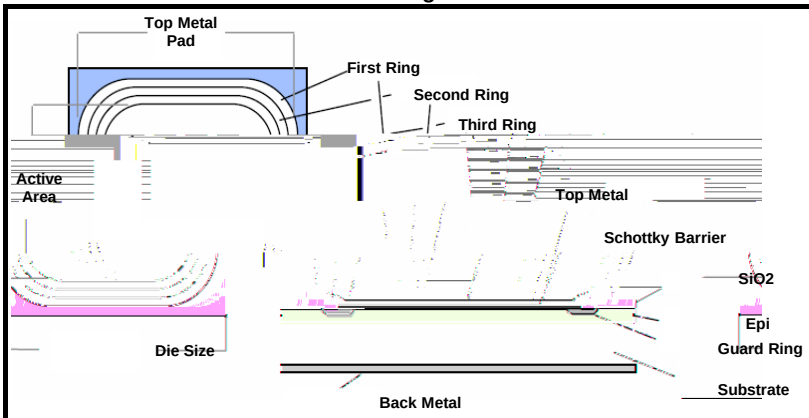
Maximum Ratings

Parameter	Symbol	Rating
Repetitive peak reverse voltage	V_{RRM}	40 V
Average forward current	$I_{F(AV)}$	2 A
Non−repetitive peak surge current (tp = 8.3 ms, halfwave, 1 cycle)	I_{FSM}	50 A
Storage temperature range	T_{stg}	-50 to +175 °C
Maximum operating junction temperature	T_j	175 °C

Static Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Value	
		Spec	Typical
Reverse breakdown voltage I_R = 1mA	V_{BR}	45 V	52V
Maximum forward voltage drop I_F = 2 A Pulse Test: tp = 300 μs, δ ≤ 2%	V_F	0.62V	0.58V
Maximum reverse current $V_R = V_{RRM}$ Pulse Test: tp = 300 μs, δ ≤ 2%	I_R	5uA	1uA

Device Schematics and Outline Drawing



Die Thickness *	11 Mils
Die Size **	45 Mils
Top Metal Pad	40 Mils
Active Area	36 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

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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