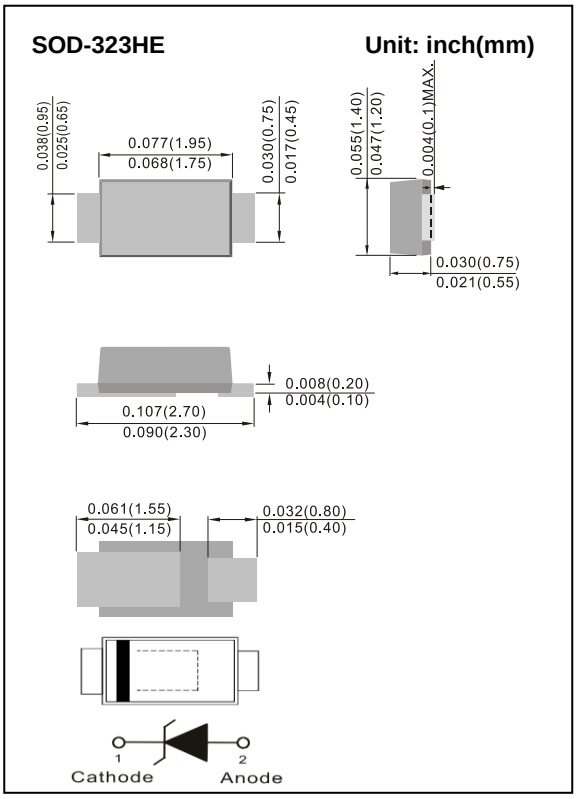
PZS513V9BCH-AU ~ PZS5143BCH-AU Series

SILICON ZENER DIODE

Voltage 3.9~43 V **Power** 500 mW



Features

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.0002 ounces, 0.005 grams

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation at T_A=25°C	P_D (1)	500	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ (2)	250	°C /W
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

NOTES:

1. Mounted on a 5mm^2 copper pads to each terminal.
2. Mounted on a FR-4 PCB, single-sided copper, mini pad .

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Electrical Characteristics (T_A=25°C unless otherwise noted)

Part Number	Nominal Zener Voltage				Max. Reverse Leakage Current		Marking Code
	V_Z@I_{ZT}				I_R@V_R		
	Nom. V	Min.V	Max.V	mA	uA	V	
PZS513V9BCH-AU	3.9	3.71	4.10	0.05	5	2	AJS
PZS514V3BCH-AU	4.3	4.09	4.52	0.05	4	2	BJS
PZS514V7BCH-AU	4.7	4.47	4.94	0.05	10	3	CJS
PZS515V1BCH-AU	5.1	4.85	5.36	0.05	10	3	DJS
PZS515V3BCH-AU	5.3	5.03	5.57	0.05	10	4	EJS
PZS515V6BCH-AU	5.6	5.32	5.88	0.05	7	4.2	FJS
PZS516V2BCH-AU	6.2	5.89	6.51	0.05	10	5	HJS
PZS516V8BCH-AU	6.8	6.46	7.14	0.05	10	5.1	IJS
PZS517V5BCH-AU	7.5	7.13	7.88	0.05	10	5.7	JJS
PZS518V2BCH-AU	8.2	7.79	8.61	0.05	1	6.2	KJS
PZS518V7BCH-AU	8.7	8.27	9.14	0.05	1	6.6	LJS
PZS519V1BCH-AU	9.1	8.65	9.56	0.05	1	6.9	MJS
PZS5110BCH-AU	10	9.5	10.5	0.05	1	7.6	NJS
PZS5111BCH-AU	11	10.5	11.6	0.05	0.05	8.4	PJS
PZS5112BCH-AU	12	11.4	12.6	0.05	0.05	9.1	RJS
PZS5113BCH-AU	13	12.4	13.7	0.05	0.05	9.8	SJS
PZS5114BCH-AU	14	13.3	14.7	0.05	0.05	10.6	TJS
PZS5115BCH-AU	15	14.3	15.8	0.05	0.05	11.4	UJS
PZS5116BCH-AU	16	15.2	16.8	0.05	0.05	12.1	VJS
PZS5117BCH-AU	17	16.2	17.9	0.05	0.05	12.9	WJS
PZS5118BCH-AU	18	17.1	18.9	0.05	0.05	13.6	XJS
PZS5119BCH-AU	19	18.1	20	0.05	0.05	14.4	YJS
PZS5120BCH-AU	20	19	21	0.05	0.01	15.2	ZJS
PZS5122BCH-AU	22	20.9	23.1	0.05	0.01	16.7	2JS
PZS5124BCH-AU	24	22.8	25.2	0.05	0.01	18.2	3JS
PZS5125BCH-AU	25	23.8	26.3	0.05	0.01	19	4JS
PZS5127BCH-AU	27	25.7	28.4	0.05	0.01	20.4	6JS
PZS5128BCH-AU	28	26.6	29.4	0.05	0.01	21.2	7JS
PZS5130BCH-AU	30	28.5	31.5	0.05	0.01	22.8	9JS
PZS5133BCH-AU	33	31.4	34.7	0.05	0.01	25	AKS
PZS5136BCH-AU	36	34.2	37.8	0.05	0.01	27.3	BKS
PZS5139BCH-AU	39	37.1	41	0.05	0.01	29.6	CKS
PZS5143BCH-AU	43	40.9	45.2	0.05	0.01	32.6	DKS

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TYPICAL CHARACTERISTIC CURVES

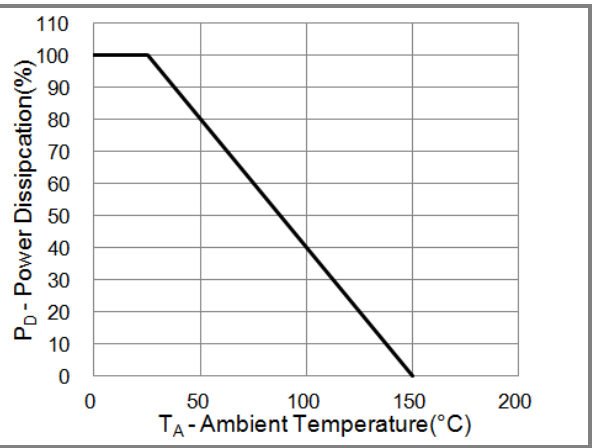


Fig.1 Power Derating Curve

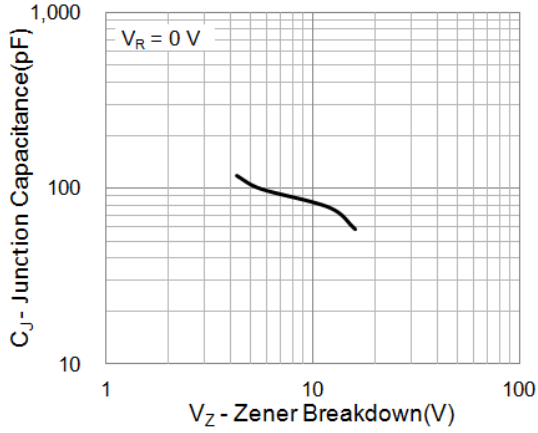


Fig.2 Typical Junction Capacitance

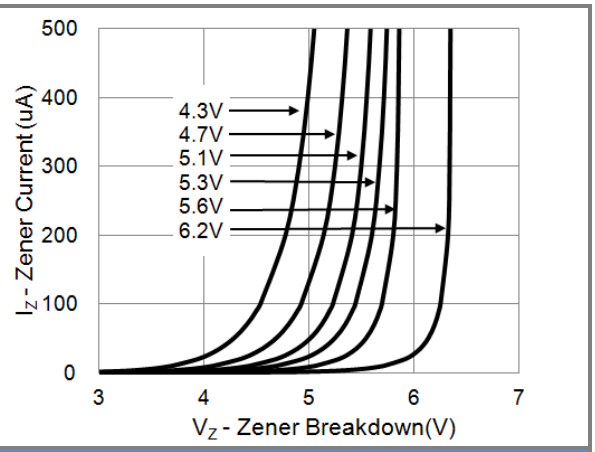


Fig.3 Typical Zener Breakdown

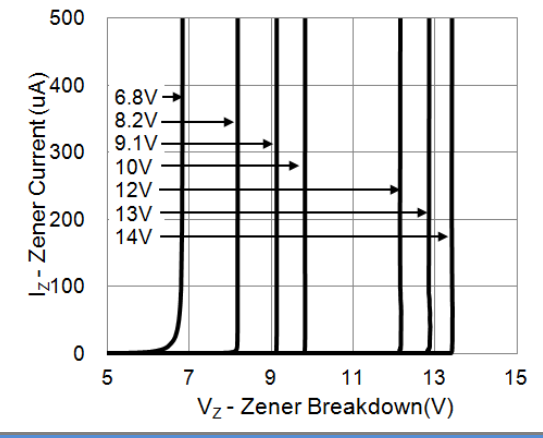


Fig.4 Typical Zener Breakdown

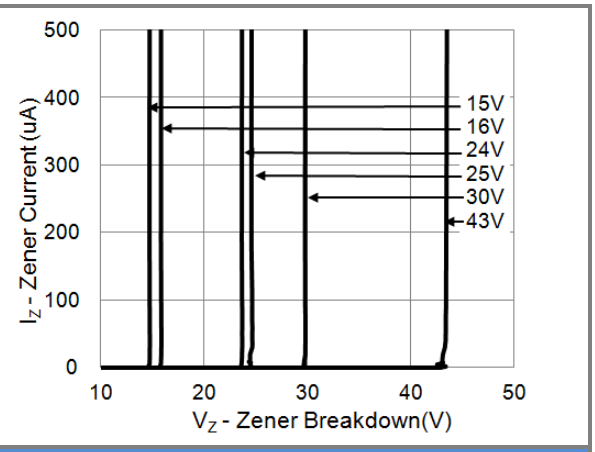


Fig.5 Typical Zener Breakdown

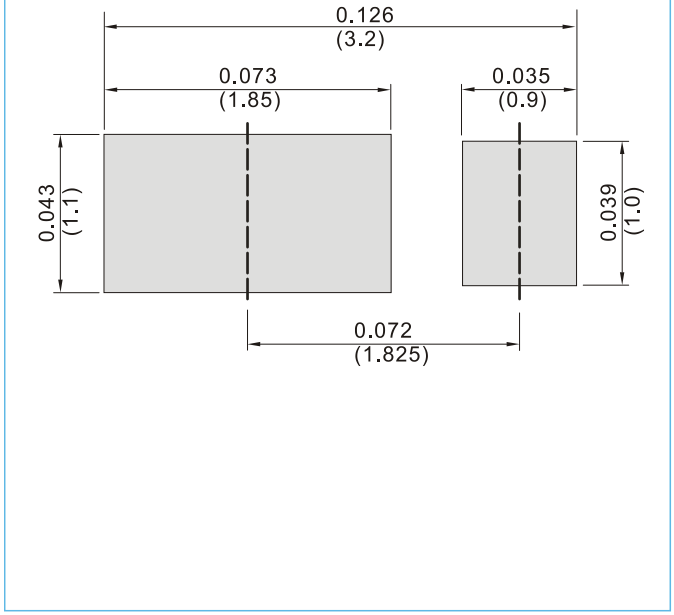
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PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
PZS51xxxCH-AU_R1_000A1	SOD-323HE	5K / 7" Reel	See Table	Halogen Free

MOUNTING PAD LAYOUT

SOD-323HE Unit : inch(mm)



PZS513V9BCH-AU ~ PZS5143BCH-AU Series

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