



## PZS513V9BCH ~ PZS5143BCH Series

### SILICON ZENER DIODE

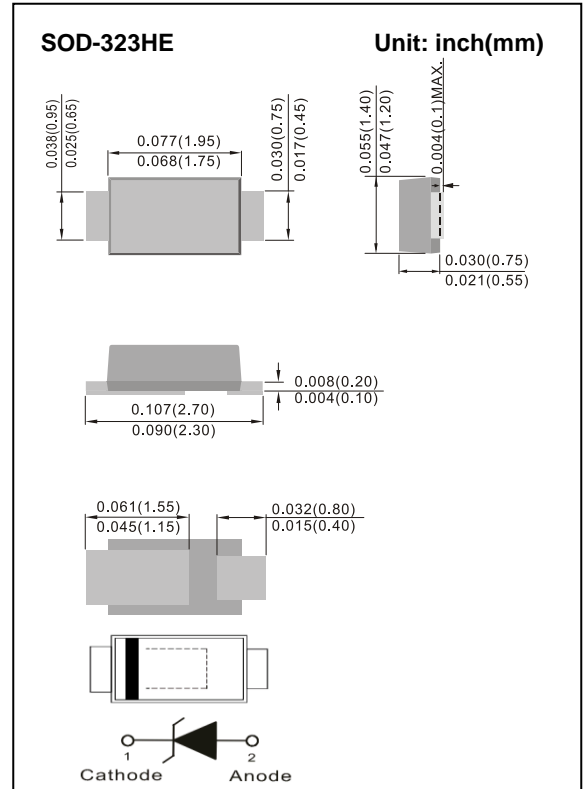
**Voltage** 3.9~43 V **Power** 500 mW

#### 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

#### 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 ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

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

#### NOTES:

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



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



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## TYPICAL CHARACTERISTIC CURVES

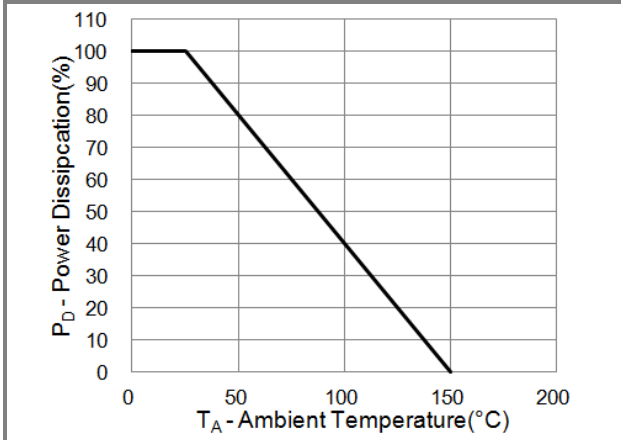


Fig.1 Power Derating Curve

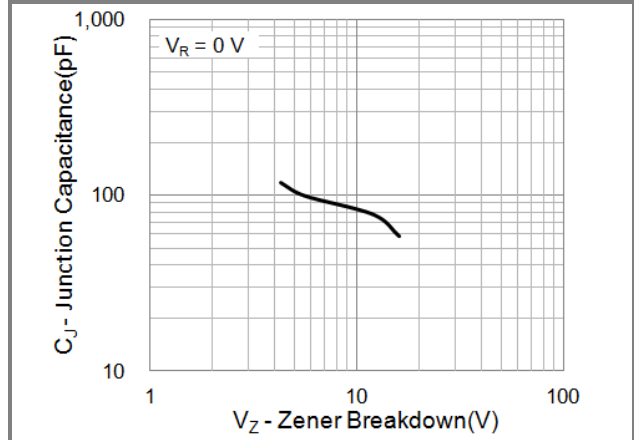


Fig.2 Typical Junction Capacitance

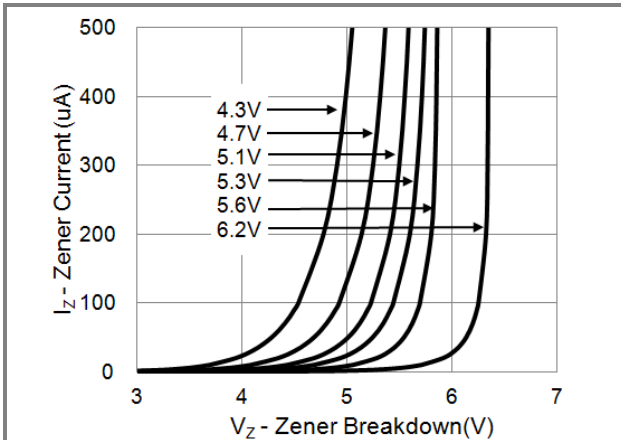


Fig.3 Typical Zener Breakdown

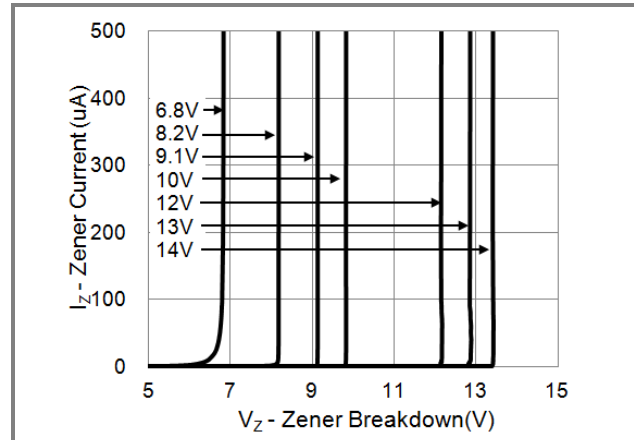


Fig.4 Typical Zener Breakdown

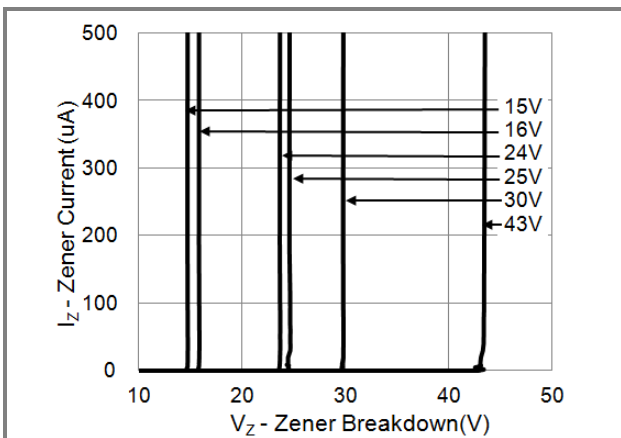


Fig.5 Typical Zener Breakdown

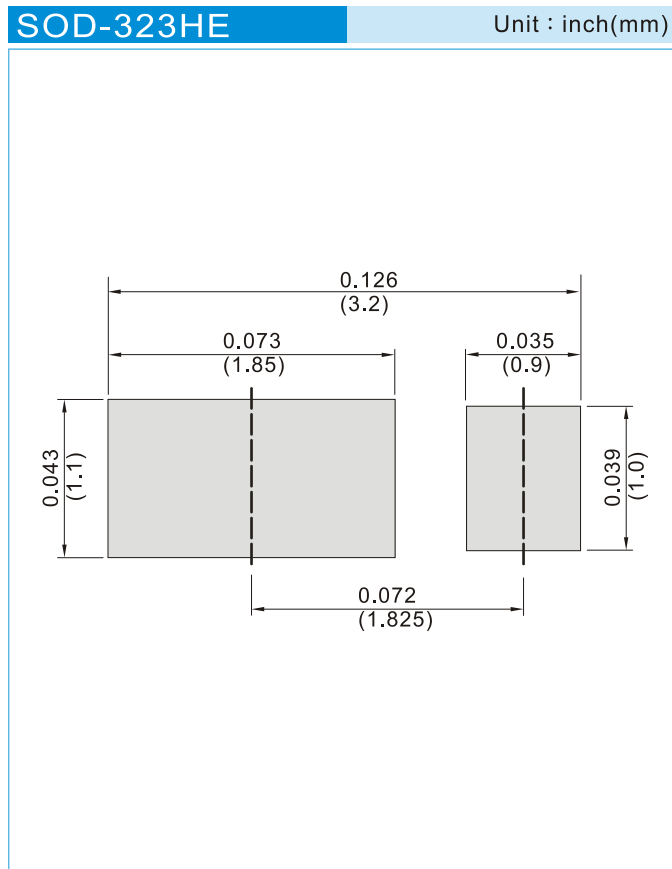


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### PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
PZS51xxxBCH_R1_00001	SOD-323HE	5K / 7" Reel	See Table	Halogen Free

### MOUNTING PAD LAYOUT





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