



## PZS513V9BAS ~ PZS5143BAS Series

### SILICON ZENER DIODE

**Voltage**

**3.9~43V**

**Power**

**500 mW**

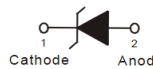
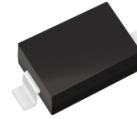
#### Features

- 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: 0.0004 ounces, 0.001 grams

SOD-123



### 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	$^\circ\text{C}/\text{W}$
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 .



## PZS513V9BAS ~ PZS5143BAS Series

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	
PZS513V9BAS	3.9	3.71	4.10	0.05	5	2	ACH
PZS514V3BAS	4.3	4.09	4.52	0.05	4	2	BCH
PZS514V7BAS	4.7	4.47	4.94	0.05	10	3	CCH
PZS515V1BAS	5.1	4.85	5.36	0.05	10	3	DCH
PZS515V3BAS	5.3	5.03	5.57	0.05	10	4	ECH
PZS515V6BAS	5.6	5.32	5.88	0.05	7	4.2	FCH
PZS516V2BAS	6.2	5.89	6.51	0.05	10	5	HCH
PZS516V8BAS	6.8	6.46	7.14	0.05	10	5.1	ICH
PZS517V5BAS	7.5	7.13	7.88	0.05	10	5.7	JCH
PZS518V2BAS	8.2	7.79	8.61	0.05	1	6.2	KCH
PZS518V7BAS	8.7	8.27	9.14	0.05	1	6.6	LCH
PZS519V1BAS	9.1	8.65	9.56	0.05	1	6.9	MCH
PZS5110BAS	10	9.5	10.5	0.05	1	7.6	NCH
PZS5111BAS	11	10.5	11.6	0.05	0.05	8.4	PCH
PZS5112BAS	12	11.4	12.6	0.05	0.05	9.1	RCH
PZS5113BAS	13	12.4	13.7	0.05	0.05	9.8	SCH
PZS5114BAS	14	13.3	14.7	0.05	0.05	10.6	TCH
PZS5115BAS	15	14.3	15.8	0.05	0.05	11.4	UCH
PZS5116BAS	16	15.2	16.8	0.05	0.05	12.1	VCH
PZS5117BAS	17	16.2	17.9	0.05	0.05	12.9	WCH
PZS5118BAS	18	17.1	18.9	0.05	0.05	13.6	XCH
PZS5119BAS	19	18.1	20	0.05	0.05	14.4	YCH
PZS5120BAS	20	19	21	0.05	0.01	15.2	ZCH
PZS5122BAS	22	20.9	23.1	0.05	0.01	16.7	2CH
PZS5124BAS	24	22.8	25.2	0.05	0.01	18.2	3CH
PZS5125BAS	25	23.8	26.3	0.05	0.01	19	4CH
PZS5127BAS	27	25.7	28.4	0.05	0.01	20.4	6CH
PZS5128BAS	28	26.6	29.4	0.05	0.01	21.2	7CH
PZS5130BAS	30	28.5	31.5	0.05	0.01	22.8	9CH
PZS5133BAS	33	31.4	34.7	0.05	0.01	25	AEH
PZS5136BAS	36	34.2	37.8	0.05	0.01	27.3	BEH
PZS5139BAS	39	37.1	41	0.05	0.01	29.6	CEH
PZS5143BAS	43	40.9	45.2	0.05	0.01	32.6	DEH



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## TYPICAL CHARACTERISTIC CURVES

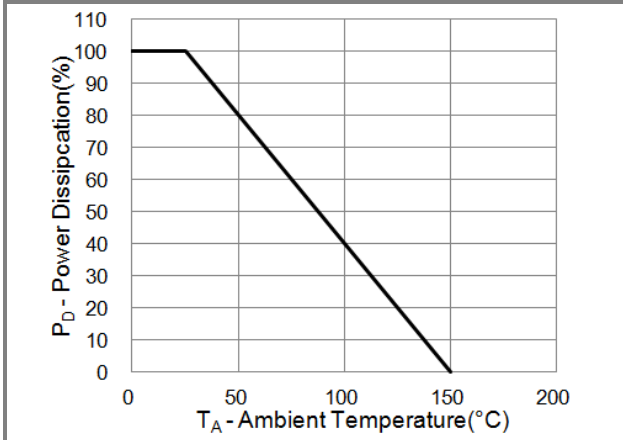


Fig.1 Power Derating Curve

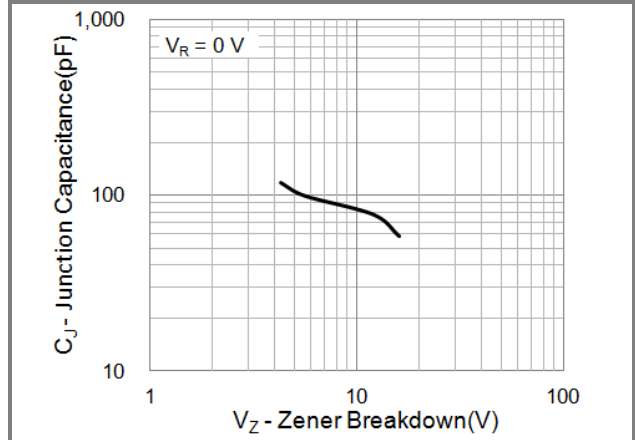


Fig.2 Typical Junction Capacitance

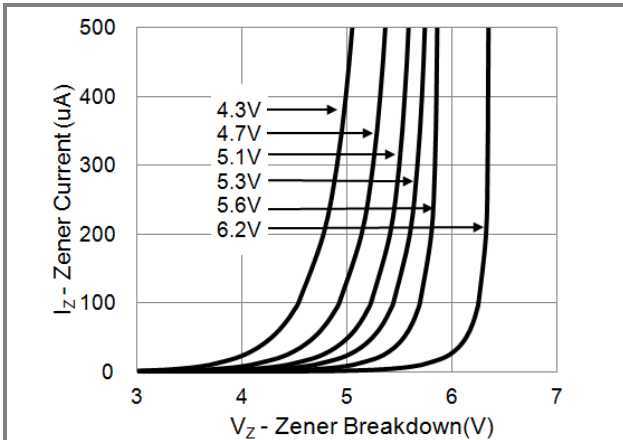


Fig.3 Typical Zener Breakdown

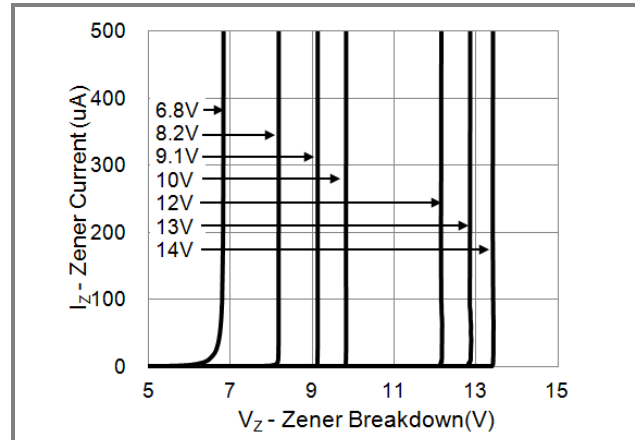


Fig.4 Typical Zener Breakdown

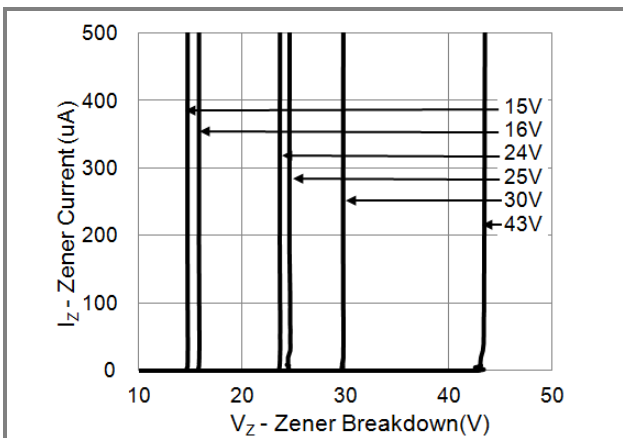


Fig.5 Typical Zener Breakdown

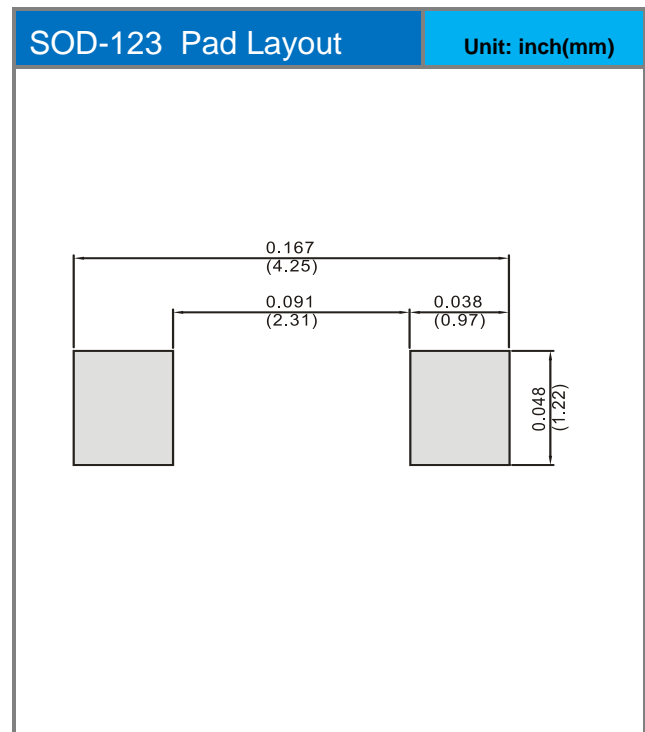
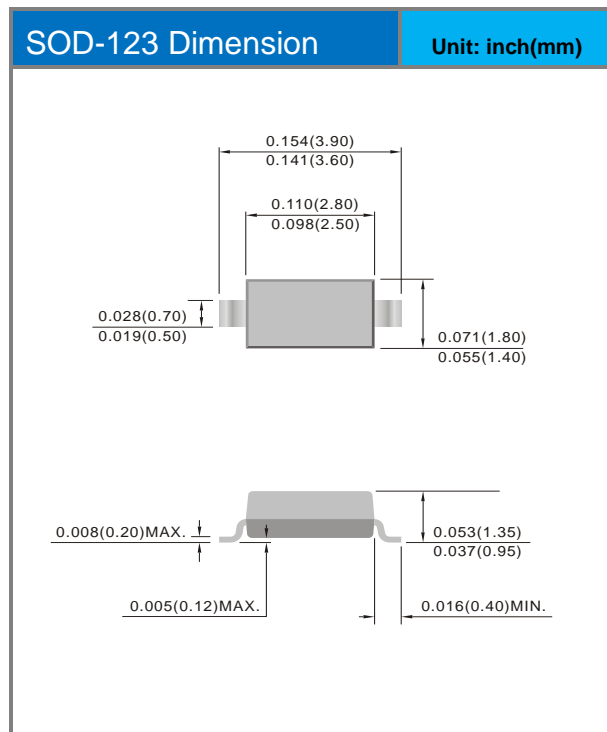


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## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PZS51xxxBAS_R1_00001	SOD-123	3K / 7" Reel	See Table	Halogen Free

## Packaging Information & Mounting Pad Layout





## **PZS513V9BAS ~ PZS5143BAS Series**

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