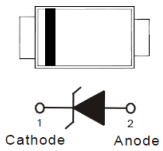
PZS513V9BAS ~ PZS5143BAS Series

SILICON ZENER DIODE

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

SOD-123





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

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 .

PZS513V9BAS ~ PZS5143BAS Series

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	
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

PZS513V9BAS ~ PZS5143BAS Series

TYPICAL CHARACTERISTIC CURVES

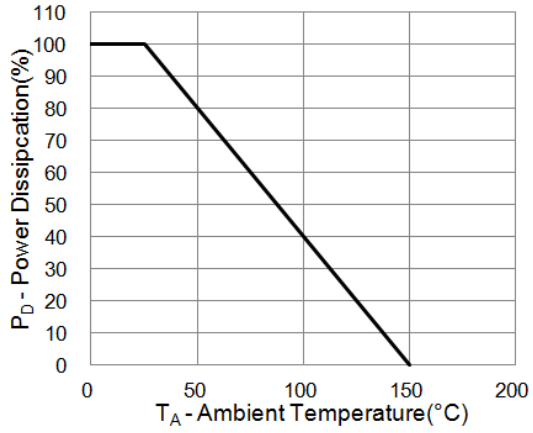


Fig.1 Power Derating Curve

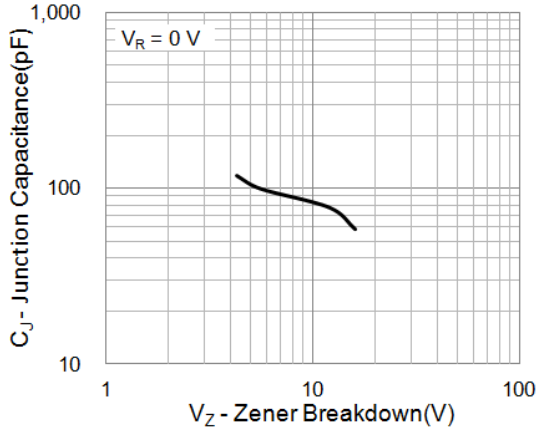


Fig.2 Typical Junction Capacitance

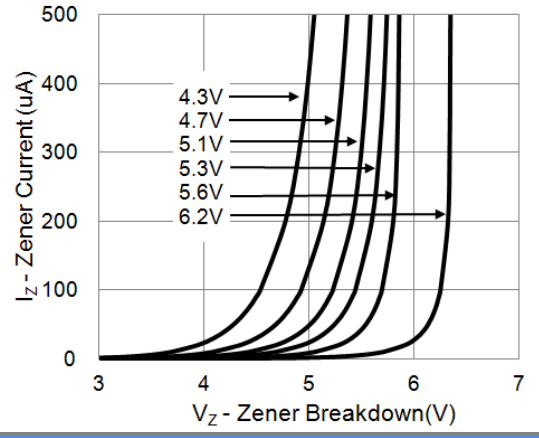


Fig.3 Typical Zener Breakdown

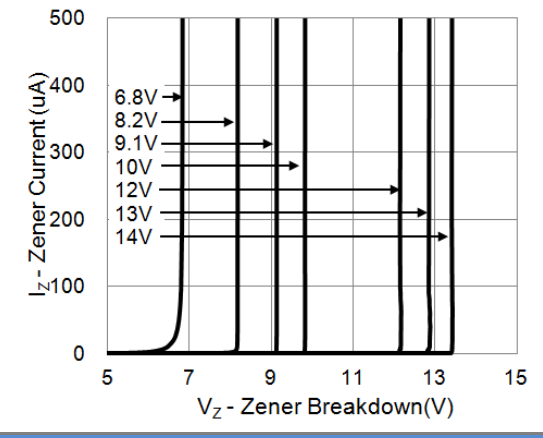


Fig.4 Typical Zener Breakdown

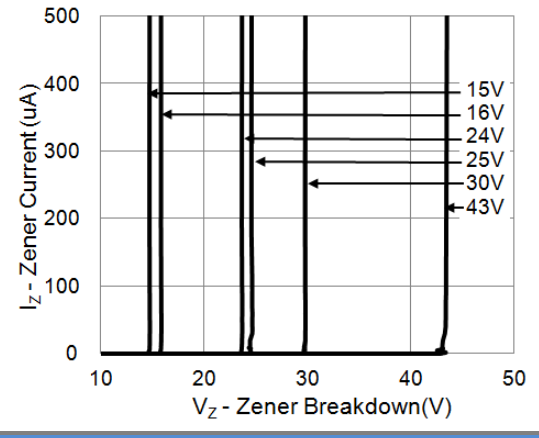


Fig.5 Typical Zener Breakdown

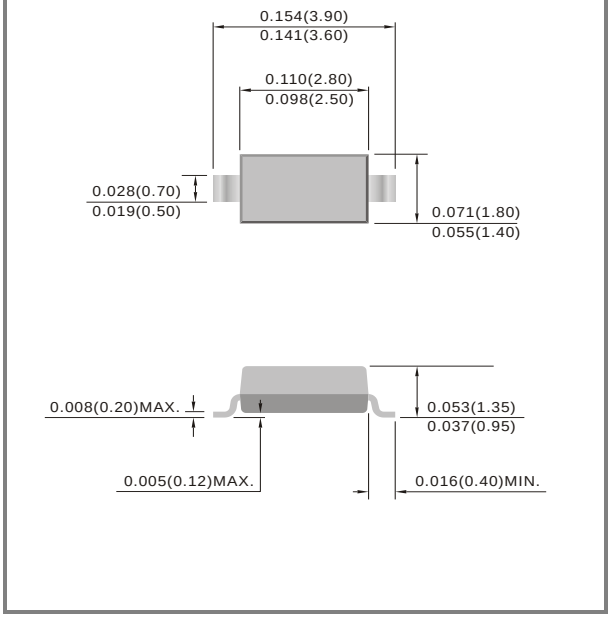
PZS513V9BAS ~ PZS5143BAS Series

Part No Packing Code Version

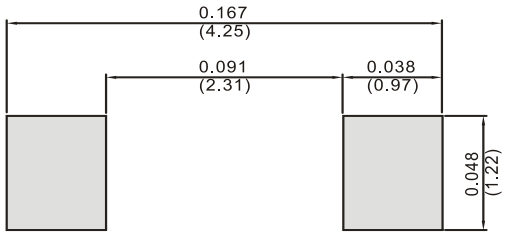
Part No Packing Code	Package Type	Packing Type	Marking	Version
PZS51xxxBAS_R1_00001	SOD-123	3K / 7" Reel	See Table	Halogen Free

Packaging Information & Mounting Pad Layout

SOD-123 Dimension — Unit: inch(mm)



SOD-123 Pad Layout — Unit: inch(mm)



PZS513V9BAS ~ PZS5143BAS Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.