



PZS113V9BES ~ PZS1143BES Series

SILICON ZENER DIODE

Voltage

3.9~43 V

Power

150 mW

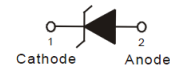
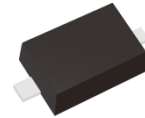
Features

- Planar die construction
- 150mW power dissipation
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: SOD-523, plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.00005 ounces, 0.0014 grams

SOD-523



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation at $T_A = 25^\circ\text{C}$	$P_D^{(1)}$	150	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}^{(2)}$	710	$^\circ\text{C}/\text{W}$
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 5mm^2 copper pads to each terminal.
2. Mounted on a FR-4 PCB, single-sided copper, mini pad .



PZS113V9BES ~ PZS1143BES 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	μA	V	
PZS113V9BES	3.9	3.71	4.10	0.05	5	2	AQ
PZS114V3BES	4.3	4.09	4.52	0.05	4	2	CQ
PZS114V7BES	4.7	4.47	4.94	0.05	10	3	EQ
PZS115V1BES	5.1	4.85	5.36	0.05	10	3	FQ
PZS115V3BES	5.3	5.03	5.57	0.05	10	4	HQ
PZS115V6BES	5.6	5.32	5.88	0.05	10	4	JQ
PZS116V2BES	6.2	5.89	6.51	0.05	10	5	KQ
PZS116V8BES	6.8	6.46	7.14	0.05	10	5.1	LQ
PZS117V5BES	7.5	7.13	7.88	0.05	0.8	5.7	MQ
PZS118V2BES	8.2	7.79	8.61	0.05	1	6.2	NQ
PZS118V7BES	8.7	8.27	9.14	0.05	1	6.6	PP
PZS119V1BES	9.1	8.65	9.56	0.05	1	6.9	RQ
PZS1110BES	10	9.5	10.5	0.05	1	7.6	TQ
PZS1111BES	11	10.5	11.6	0.05	0.05	8.4	1Q
PZS1112BES	12	11.4	12.6	0.05	0.05	9.1	2Q
PZS1113BES	13	12.4	13.7	0.05	0.05	9.8	3Q
PZS1114BES	14	13.3	14.7	0.05	0.05	10.6	4Q
PZS1115BES	15	14.3	15.8	0.05	0.05	11.4	5Q
PZS1116BES	16	15.2	16.8	0.05	0.05	12.1	6Q
PZS1117BES	17	16.2	17.9	0.05	0.05	12.9	7Q
PZS1118BES	18	17.1	18.9	0.05	0.05	13.6	8Q
PZS1119BES	19	18.1	20	0.05	0.05	14.4	9Q
PZS1120BES	20	19	21	0.05	0.01	15.2	UQ
PZS1122BES	22	20.9	23.1	0.05	0.01	16.7	VQ
PZS1124BES	24	22.8	25.2	0.05	0.01	18.2	WQ
PZS1125BES	25	23.8	26.3	0.05	0.01	19	XQ
PZS1127BES	27	25.7	28.4	0.05	0.01	20.4	YQ
PZS1128BES	28	26.6	29.4	0.05	0.01	21.2	ZQ
PZS1130BES	30	28.5	31.5	0.05	0.01	22.8	RA



PZS113V9BES ~ PZS1143BES 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	uA	V	
PZS1133BES	33	31.4	34.7	0.05	0.01	25	RB
PZS1136BES	36	34.2	37.8	0.05	0.01	27.3	RC
PZS1139BES	39	37.1	41	0.05	0.01	29.6	RD
PZS1143BES	43	40.9	45.2	0.05	0.01	32.6	RE



PZS113V9BES ~ PZS1143BES Series

TYPICAL CHARACTERISTIC CURVES

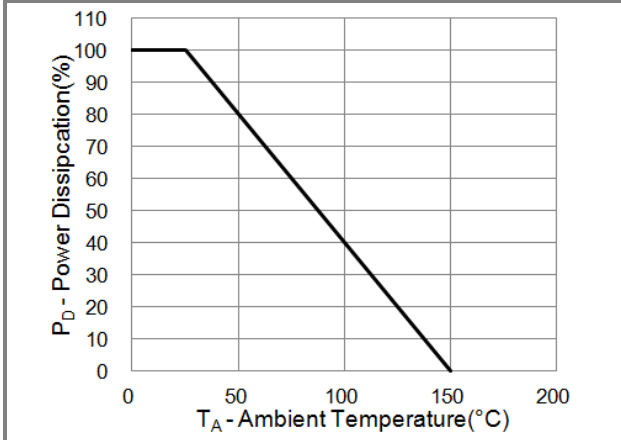


Fig.1 Power Derating Curve

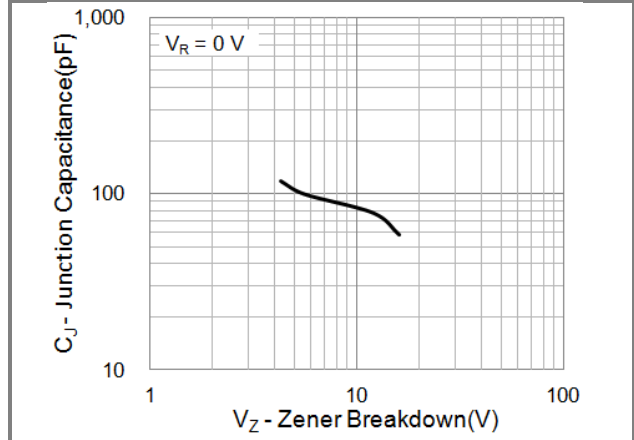


Fig.2 Typical Junction Capacitance

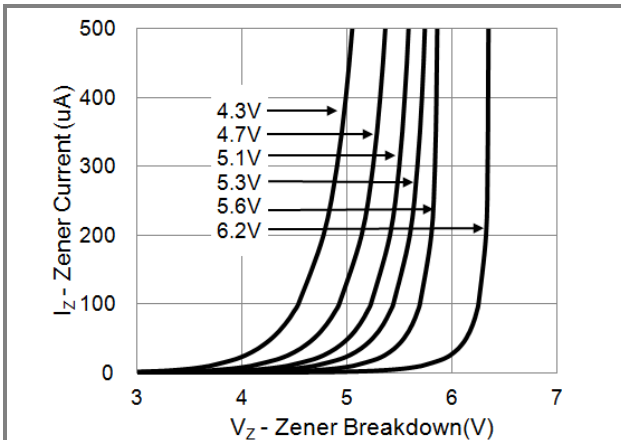


Fig.3 Typical Zener Breakdown

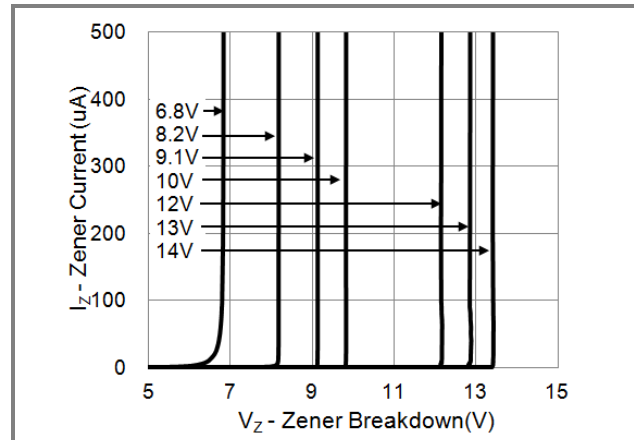


Fig.4 Typical Zener Breakdown

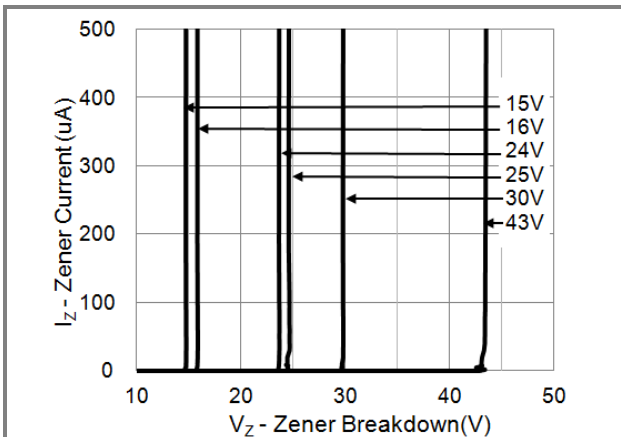


Fig.5 Typical Zener Breakdown

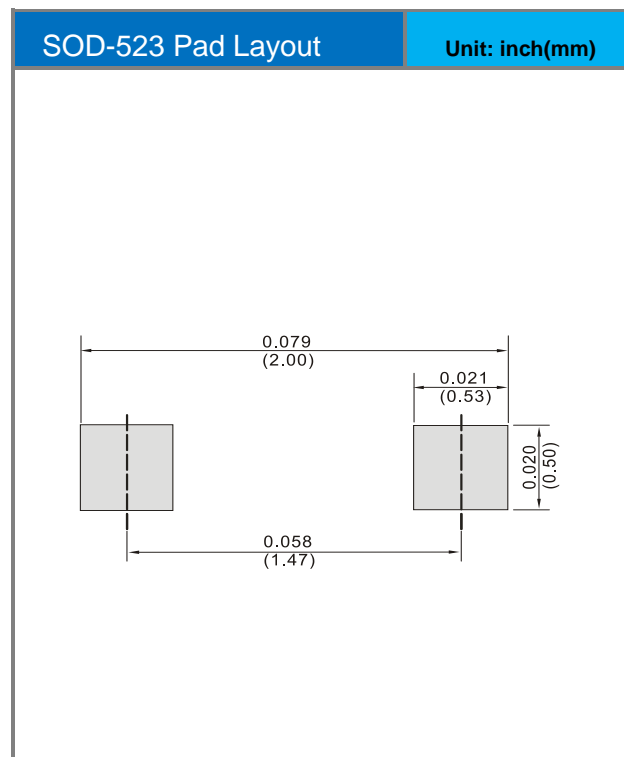
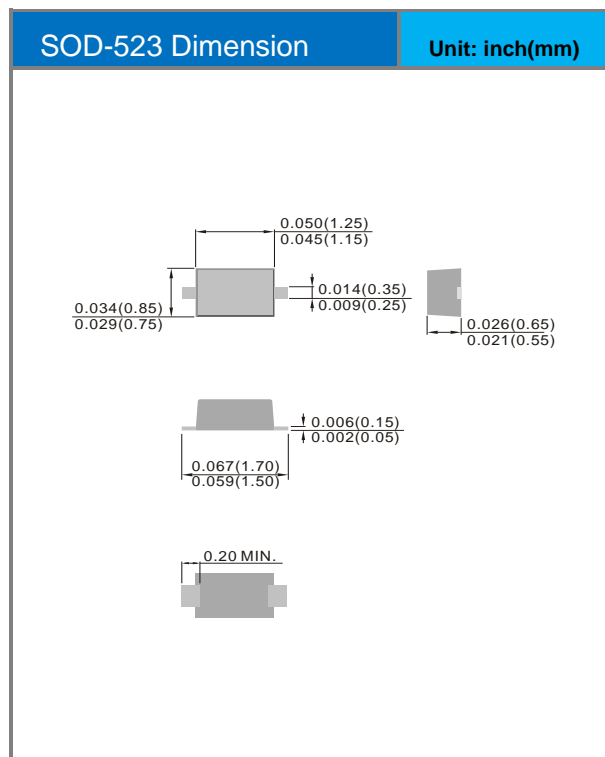


PZS113V9BES ~ PZS1143BES Series

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PZS11xxxBES_R1_00001	SOD-523	5K pcs / 7" reel	See Table	Halogen free

Packaging Information & Mounting Pad Layout





PZS113V9BES ~ PZS1143BES 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.