



## PZS51A3V9CS ~ PZS51A43CS Series

### SILICON ZENER DIODE

**Voltage**

**3.9~43 V**

**Power**

**200 mW**

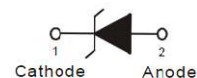
#### Features

- Planar Die construction
- 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

- Case : SOD-323 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.00014 ounces, 0.0041 grams

SOD-323



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation at T <sub>A</sub> = 25 °C	P <sub>D</sub> <sup>(1)</sup>	200	mW
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub> <sup>(2)</sup>	650	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



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**Electrical Characteristics** ( $T_A = 25\text{ }^\circ\text{C}$  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	
PZS51A3V9CS	3.9	3.82	3.98	0.05	5	2	ACH
PZS51A4V3CS	4.3	4.21	4.39	0.05	4	2	BCH
PZS51A4V7CS	4.7	4.61	4.79	0.05	10	3	CCH
PZS51A5V1CS	5.1	5.00	5.20	0.05	10	3	DCH
PZS51A5V3CS	5.3	5.19	5.41	0.05	10	4	ECH
PZS51A5V6CS	5.6	5.49	5.71	0.05	7	4.2	FCH
PZS51A6V2CS	6.2	6.08	6.32	0.05	10	5	HCH
PZS51A6V8CS	6.8	6.66	6.94	0.05	10	5.1	ICH
PZS51A7V5CS	7.5	7.35	7.65	0.05	10	5.7	JCH
PZS51A8V2CS	8.2	8.04	8.36	0.05	1	6.2	KCH
PZS51A8V7CS	8.7	8.53	8.87	0.05	1	6.6	LCH
PZS51A9V1CS	9.1	8.92	9.28	0.05	1	6.9	MCH
PZS51A10CS	10	9.80	10.20	0.05	1	7.6	NCH
PZS51A11CS	11	10.78	11.22	0.05	0.05	8.4	PCH
PZS51A12CS	12	11.76	12.24	0.05	0.05	9.1	RCH
PZS51A13CS	13	12.74	13.26	0.05	0.05	9.8	SCH
PZS51A14CS	14	13.72	14.28	0.05	0.05	10.6	TCH
PZS51A15CS	15	14.70	15.30	0.05	0.05	11.4	UCH
PZS51A16CS	16	15.68	16.32	0.05	0.05	12.1	VCH
PZS51A17CS	17	16.66	17.34	0.05	0.05	12.9	WCH
PZS51A18CS	18	17.64	18.36	0.05	0.05	13.6	XCH
PZS51A19CS	19	18.62	19.38	0.05	0.05	14.4	YCH
PZS51A20CS	20	19.60	20.40	0.05	0.01	15.2	ZCH
PZS51A22CS	22	21.56	22.44	0.05	0.01	16.7	2CH
PZS51A24CS	24	23.52	24.48	0.05	0.01	18.2	3CH
PZS51A25CS	25	24.50	25.50	0.05	0.01	19	4CH
PZS51A27CS	27	26.46	27.54	0.05	0.01	20.4	6CH
PZS51A28CS	28	27.44	28.56	0.05	0.01	21.2	7CH
PZS51A30CS	30	29.40	30.60	0.05	0.01	22.8	9CH



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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	uA	V	
PZS51A33CS	33	32.34	33.66	0.05	0.01	25	AEH
PZS51A36CS	36	35.28	36.72	0.05	0.01	27.3	BEH
PZS51A39CS	39	38.22	39.78	0.05	0.01	29.6	CEH
PZS51A43CS	43	42.14	43.86	0.05	0.01	32.6	DEH

**NOTES :**

1. Mounted on a FR-4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area
2. Mounted on a FR4 PCB, single-sided copper, standard footprint



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## TYPICAL CHARACTERISTIC CURVES

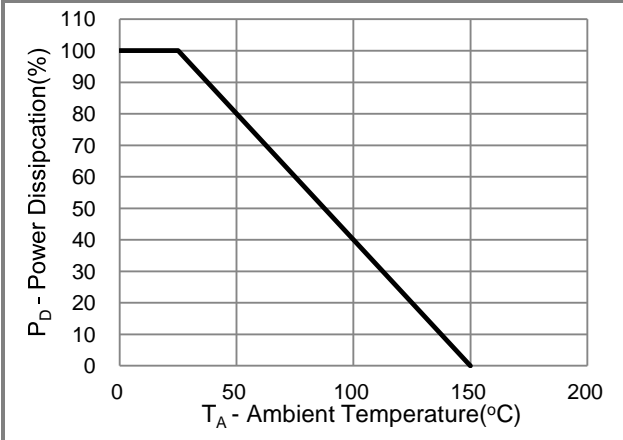


Fig.1 Power Rating Curve

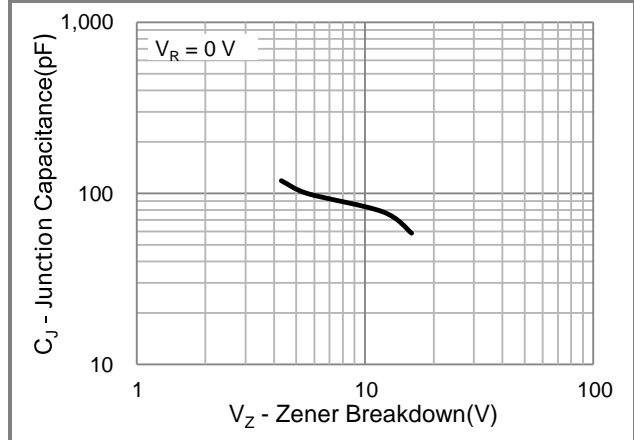


Fig.2 Typical Junction Capacitance

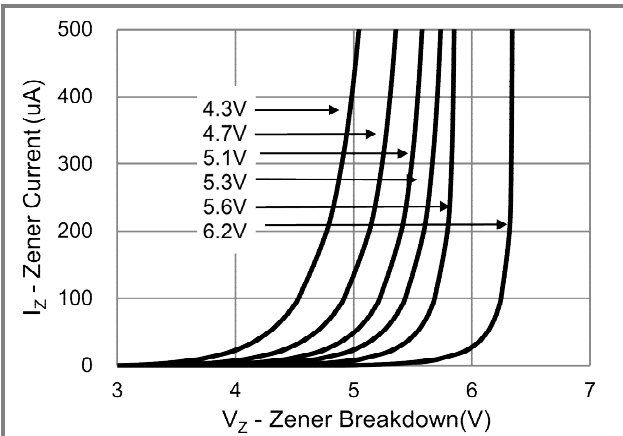


Fig.3 Typical Zener Breakdown

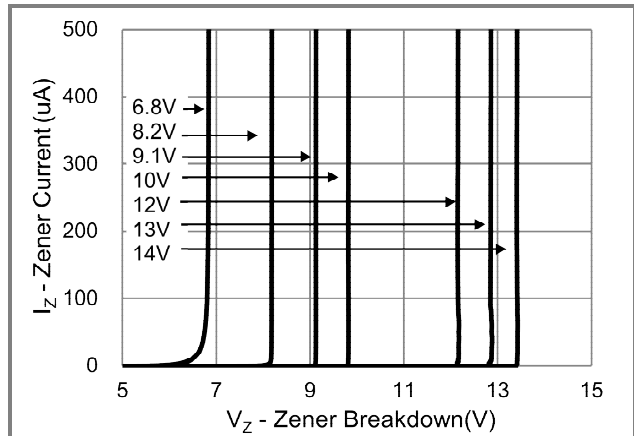


Fig.4 Typical Zener Breakdown

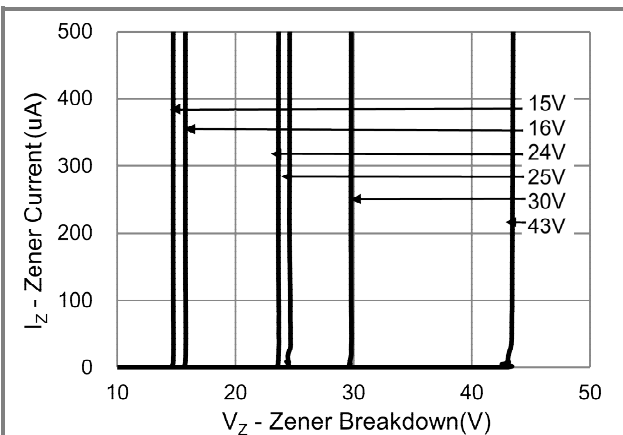


Fig.5 Typical Zener Breakdown

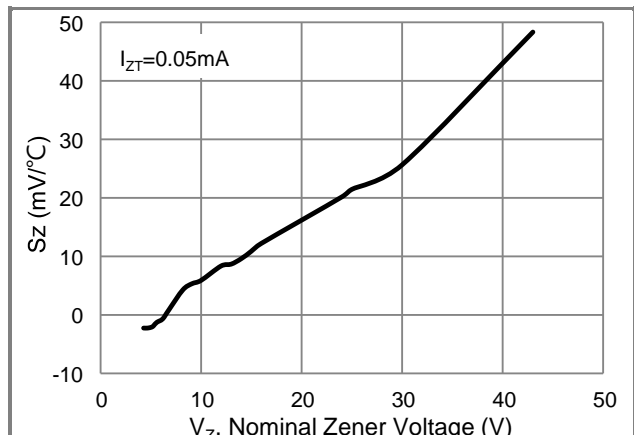


Fig.6 Typical Temperature Coefficient

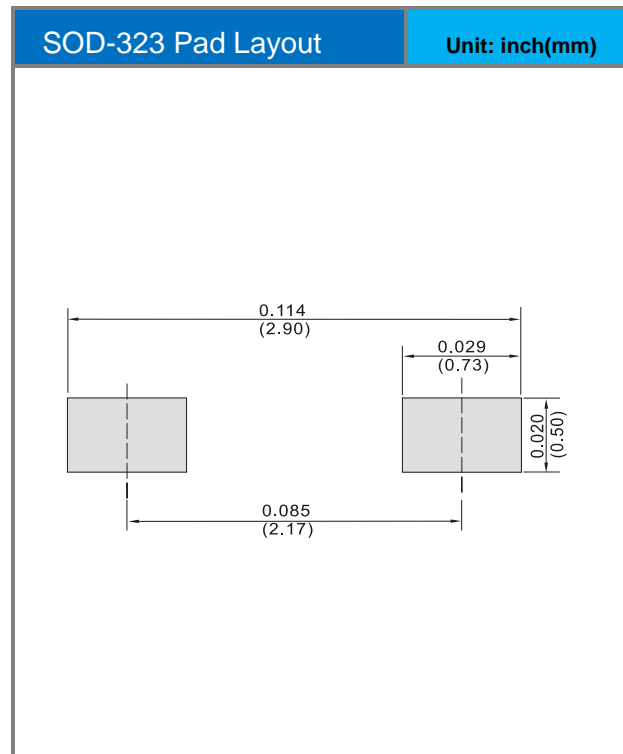
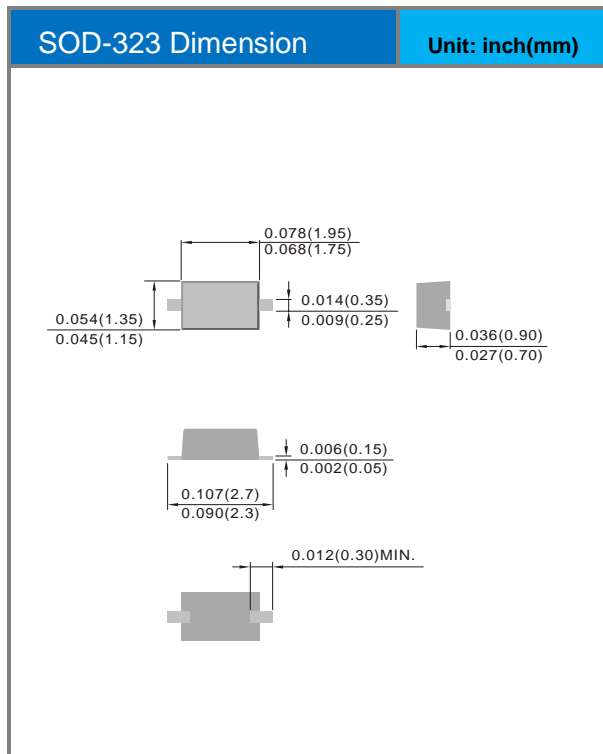


## PZS51A3V9CS ~ PZS51A43CS Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
PZS51AxxxCS_R1_00001	SOD-323	5K / 7" Reel	See Table	Halogen free

### Packaging Information & Mounting Pad Layout





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