



# PZS82C2V4AS ~ PZS82C75AS Series

## Silicon Zener Diode

**Voltage** 2.4~75 V **Power** 830 mW

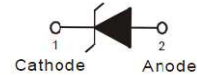
### Features

- 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-123 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0004 ounces, 0.01 grams

SOD-123



## 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	(Note 1) P <sub>D</sub>	830	mW
	(Note 2) P <sub>D</sub>	375	mW
Typical Thermal Resistance Junction to Ambient <sup>(Note 2)</sup>	R <sub>θJA</sub>	333	°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<sub>A</sub> = 25 °C unless otherwise noted)

Part Number	Nominal Zener Voltage				Nominal Zener Impedance				Max. Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @I <sub>ZT</sub>				Z <sub>VT</sub> @I <sub>ZT</sub>		Z <sub>VK</sub> @I <sub>ZK</sub>		I <sub>R</sub> @V <sub>R</sub>		
	Nom. V	Min. V	Max. V	mA	Ω	mA	Ω	mA	μA	V	
PZS82C2V4AS	2.4	2.28	2.52	5	100	5	600	1	50	1	RRH
PZS82C2V7AS	2.7	2.57	2.84	5	100	5	600	1	20	1	SRH
PZS82C3V0AS	3	2.85	3.15	5	95	5	600	1	10	1	TRH
PZS82C3V3AS	3.3	3.14	3.47	5	95	5	600	1	5	1	URH
PZS82C3V6AS	3.6	3.42	3.78	5	90	5	600	1	5	1	VRH
PZS82C3V9AS	3.9	3.71	4.10	5	90	5	600	1	3	1	WRH
PZS82C4V3AS	4.3	4.09	4.52	5	88	5	600	1	3	1	XRH
PZS82C4V7AS	4.7	4.47	4.94	5	70	5	500	1	3	2	YRH
PZS82C5V1AS	5.1	4.85	5.36	5	50	5	480	1	2	2	ZRH
PZS82C5V6AS	5.6	5.32	5.88	5	25	5	400	1	1	2	2RH
PZS82C6V2AS	6.2	5.89	6.51	5	10	5	150	1	3	4	3RH
PZS82C6V8AS	6.8	6.46	7.14	5	8	5	80	1	2	4	4RH
PZS82C7V5AS	7.5	7.13	7.88	5	7	5	80	1	0.1	5	6RH
PZS82C8V2AS	8.2	7.79	8.61	5	7	5	80	1	0.1	6	7RH
PZS82C8V7AS	8.7	8.27	9.14	5	9	5	100	1	0.1	6.5	9RH
PZS82C9V1AS	9.1	8.65	9.56	5	10	5	100	1	0.1	7	ASH
PZS82C10AS	10	9.50	10.50	5	15	5	150	1	0.1	7.5	BSH
PZS82C11AS	11	10.45	11.55	5	18	5	150	1	0.1	8.5	CSH
PZS82C12AS	12	11.40	12.60	5	22	5	150	1	0.1	9	DSH
PZS82C13AS	13	12.35	13.65	5	25	5	170	1	0.1	10	ESH
PZS82C14AS	14	13.30	14.70	5	28	5	170	1	0.1	10.5	FSH
PZS82C15AS	15	14.25	15.75	5	32	5	200	1	0.1	11	HSH
PZS82C16AS	16	15.20	16.80	5	36	5	200	1	0.1	12	ISH
PZS82C17AS	17	16.15	17.85	5	39	5	200	1	0.1	13	JSH
PZS82C18AS	18	17.10	18.90	5	42	5	225	1	0.1	14	KSH
PZS82C20AS	20	19.00	21.00	5	48	5	225	1	0.1	15	LSH
PZS82C22AS	22	20.90	23.10	5	55	5	250	1	0.1	17	MSH
PZS82C24AS	24	22.80	25.20	5	62	5	250	1	0.1	18	NSH
PZS82C27AS	27	25.65	28.35	5	70	5	300	1	0.1	20	PSH



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	V <sub>Z</sub> @I <sub>ZT</sub>				Z <sub>ZT</sub> @I <sub>ZT</sub>		Z <sub>ZK</sub> @I <sub>ZK</sub>		I <sub>R</sub> @V <sub>R</sub>		
	Nom. V	Min. V	Max. V	mA	Ω	mA	Ω	mA	uA	V	
PZS82C28AS	28	26.60	29.40	5	74	5	300	1	0.1	22	RSH
PZS82C30AS	30	28.50	31.50	5	80	5	300	1	0.1	22.5	SSH
PZS82C33AS	33	31.35	34.65	5	80	5	325	1	0.1	25	TSH
PZS82C36AS	36	34.20	37.80	5	80	5	350	1	0.1	27	USH
PZS82C39AS	39	37.05	40.95	5	90	5	350	1	0.1	29	VSH
PZS82C43AS	43	40.85	45.15	5	90	5	375	1	0.1	32	WSH
PZS82C47AS	47	44.65	49.35	5	100	5	375	1	0.1	35	XSH
PZS82C51AS	51	48.45	53.55	5	100	5	400	1	0.1	38	YSH
PZS82C56AS	56	53.20	58.80	2.5	100	2.5	1000	1	0.1	42	ZSH
PZS82C62AS	62	58.90	65.10	2.5	135	2.5	1000	1	0.1	46	2SH
PZS82C68AS	68	64.60	71.40	2.5	150	2.5	1000	1	0.1	51	3SH
PZS82C75AS	75	71.25	78.75	2.5	200	2.5	1000	1	0.1	56	4SH

**NOTES :**

1. Mounted on Metal Core PCB
2. Mounted on a FR-4 PCB, single-sided copper, standard footprint



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## TYPICAL CHARACTERISTIC CURVES

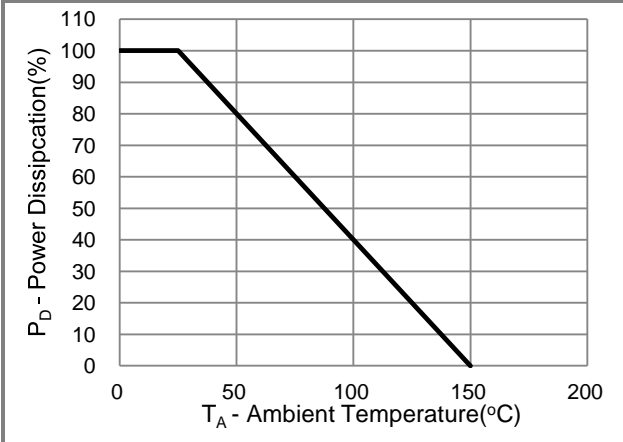


Fig.1 Power Rating Curve

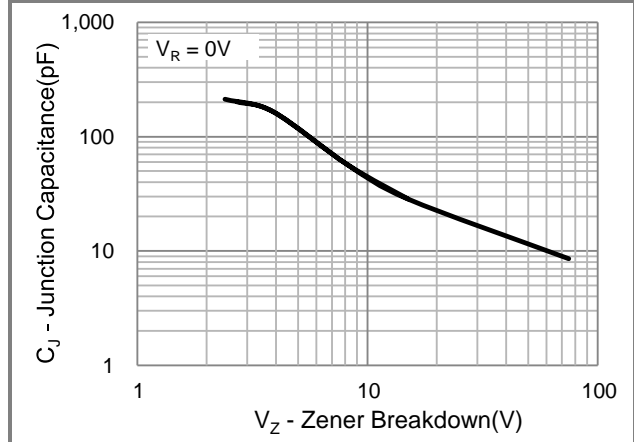


Fig.2 Typical Junction Capacitance

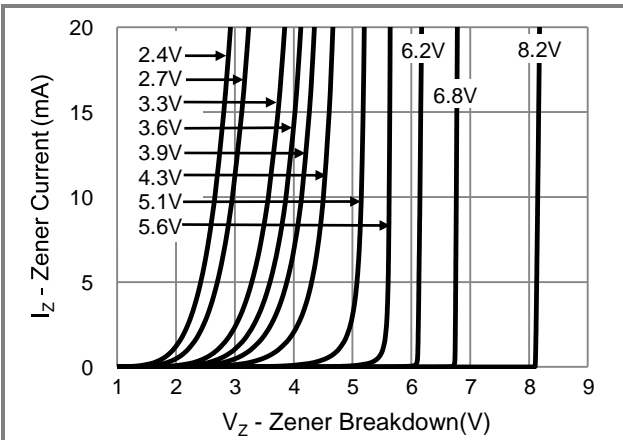


Fig.3 Typical Zener Breakdown

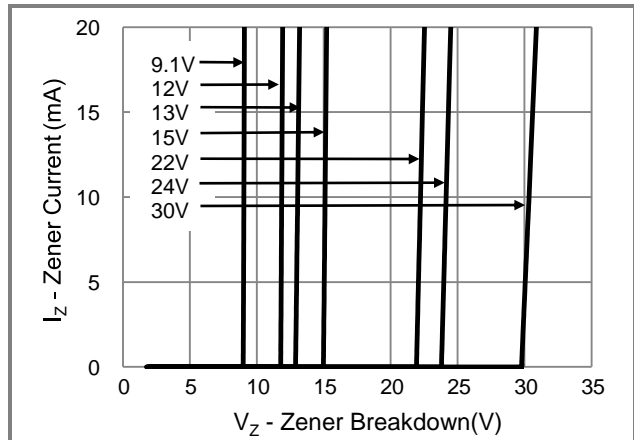


Fig.4 Typical Zener Breakdown

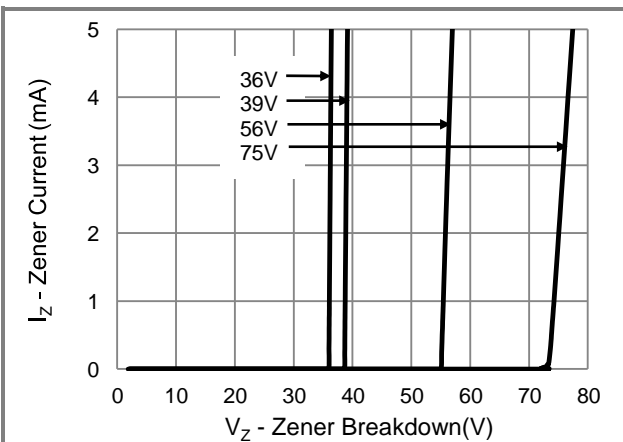


Fig.5 Typical Zener Breakdown

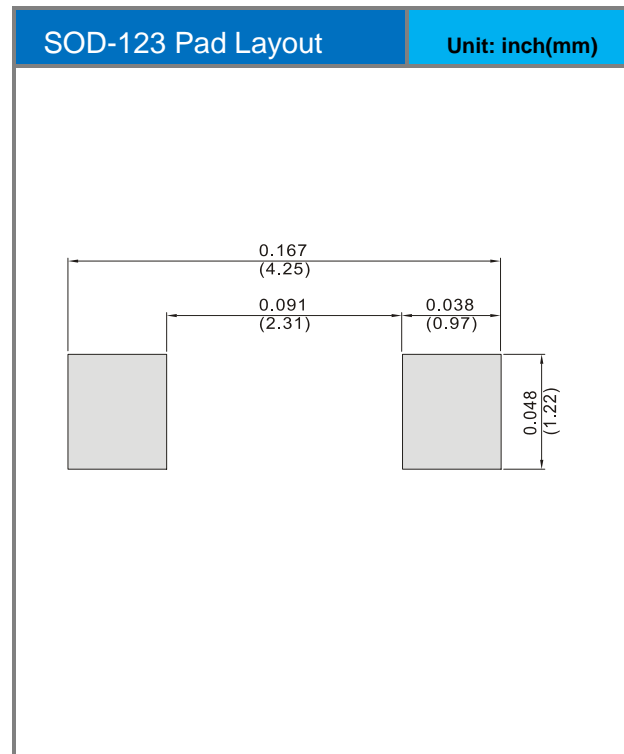
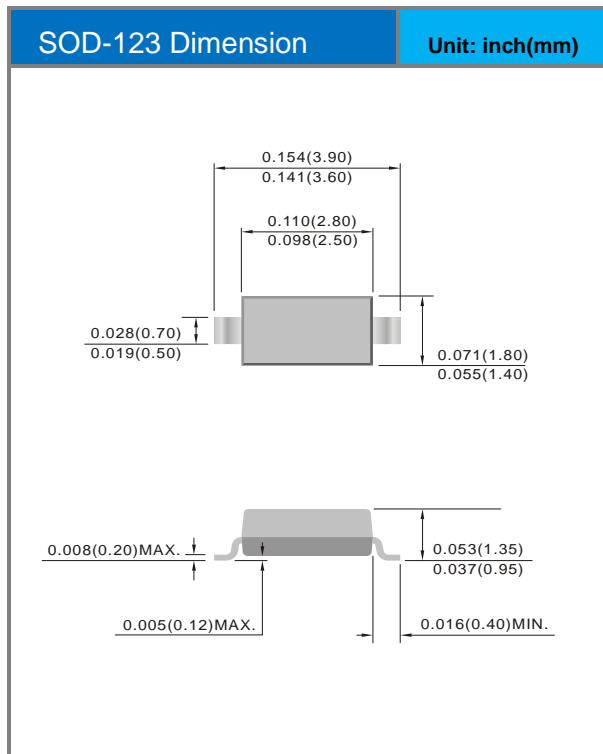


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## Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
PZS82CxxxAS_R1_00301	SOD-123	3K / 7" Reel	See Table	Halogen free

## Packaging Information & Mounting Pad Layout





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