

PZAH1AL5V6A-AU ~ PZAH1AL43A-AU Series

Silicon Zener Diode

Voltage

5.6~43 V

Power

1 Watt

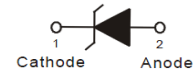
Features

- Silicon planar Zener diode
- Low profile surface-mount package
- Low leakage current
- Excellent stability
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SOD-123FL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0173 grams

SOD-123FL



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Peak Pulse Power Dissipation at T _A =25°C ^(Note 1)	P _D	1	W
ESD Voltage per IEC61000-4-2 (Air)	V _{ESD}	±30	kV
ESD Voltage per IEC61000-4-2 (Contact)		±30	
Maximum Forward Voltage at 200mA	V _F	1.2	V
Typical Thermal Resistance ^(Note 2)	R _{θJA}	200	°C /W
Operating Junction Temperature Range	T _J	-55 to +175	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

NOTES :

1. Mounted on PCB with 10cm x 5cm copper pads to each terminal.
2. Mounted on a FR-4 PCB, single-sided copper, Standard footprint.

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Electrical Characteristics (T_A=25°C unless otherwise noted)

Part Number	Nominal Zener Voltage				Nominal Zener Impedance		Max. Reverse Leakage Current		Temperature Coefficient		Junction Capacitance	Marking Code
	V _Z @I _{ZT}				Z _{ZT} @I _{ZT}		I _R @V _R		S _Z @ I _{ZT}		C _J @ 0V	
	Nom. V	Min.	Max.	mA	Ω	mA	μA	V	Min.	Max.	Max.	
		V	V						mV/°C	mV/°C	pF	
PZAH1AL5V6A-AU	5.6	5.49	5.71	20	10	20	20	2	1.39	2.32	1200	AFJ
PZAH1AL6V2A-AU	6.2	6.08	6.32	10	30	10	20	3	1.87	3.11	1150	AFK
PZAH1AL6V8A-AU	6.8	6.66	6.94	10	30	10	10	3	2.33	3.89	1150	AFL
PZAH1AL7V5A-AU	7.5	7.35	7.65	10	30	10	10	3	2.88	4.80	1100	AFM
PZAH1AL8V2A-AU	8.2	8.04	8.36	10	30	10	10	4	3.43	5.71	1050	AFN
PZAH1AL9V1A-AU	9.1	8.92	9.28	10	30	10	10	5	4.13	6.89	1000	AFP
PZAH1AL10A-AU	10	9.8	10.2	10	30	10	10	7	4.83	8.05	950	AFR
PZAH1AL11A-AU	11	10.78	11.22	10	30	10	10	7	5.62	9.36	900	AFS
PZAH1AL12A-AU	12	11.76	12.24	10	30	10	10	8	6.40	10.66	800	AFT
PZAH1AL13A-AU	13	12.74	13.26	10	30	10	10	9	7.18	11.96	800	AFU
PZAH1AL14A-AU	14	13.72	14.28	10	30	10	10	10	7.96	13.26	700	AFV
PZAH1AL15A-AU	15	14.7	15.3	10	30	10	10	10	8.74	14.56	650	AFW
PZAH1AL16A-AU	16	15.68	16.32	10	30	10	10	11	9.52	15.86	600	AFX
PZAH1AL17A-AU	17	16.66	17.34	10	30	10	10	12	10.31	17.18	550	AFY
PZAH1AL18A-AU	18	17.64	18.36	10	30	10	10	13	11.09	18.48	450	AFZ
PZAH1AL19A-AU	19	18.62	19.38	10	30	10	10	13.3	11.87	19.78	400	AGA
PZAH1AL20A-AU	20	19.6	20.4	10	30	10	10	14	12.65	21.08	350	AGB
PZAH1AL22A-AU	22	21.56	22.44	10	30	10	10	16	14.15	23.58	300	AGC
PZAH1AL24A-AU	24	23.52	24.48	10	30	10	10	17	15.64	26.06	300	AGD
PZAH1AL25A-AU	25	24.5	25.5	10	30	10	10	17.5	16.39	27.31	300	AGE
PZAH1AL27A-AU	27	26.46	27.54	10	30	10	10	19	17.88	29.80	300	AGF
PZAH1AL28A-AU	28	27.44	28.56	10	30	10	10	19.6	18.63	31.05	300	AGG
PZAH1AL30A-AU	30	29.4	30.6	10	30	10	10	21	20.12	33.54	300	AGH
PZAH1AL33A-AU	33	32.34	33.66	10	30	10	10	26.4	22.37	37.29	250	AGJ
PZAH1AL36A-AU	36	35.28	36.72	5	30	5	10	28.8	24.62	41.03	250	AGK
PZAH1AL39A-AU	39	38.22	39.78	5	65	5	10	31.8	26.86	44.76	250	AGL
PZAH1AL43A-AU	43	42.14	43.86	5	65	5	10	35.8	29.85	49.75	200	AGM

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TYPICAL CHARACTERISTIC CURVES

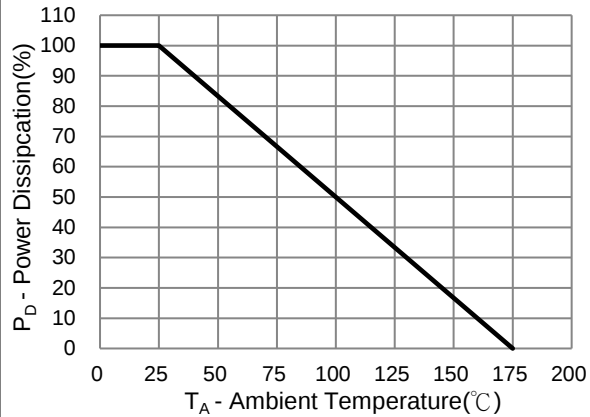


Fig.1 Power Derating Curve

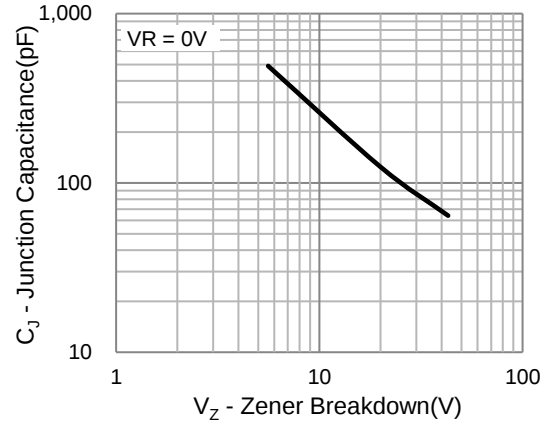


Fig.2 Typical Junction Capacitance

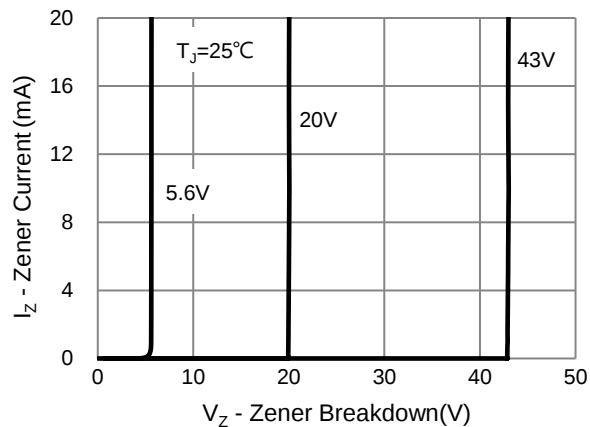


Fig.3 Typical Zener Breakdown

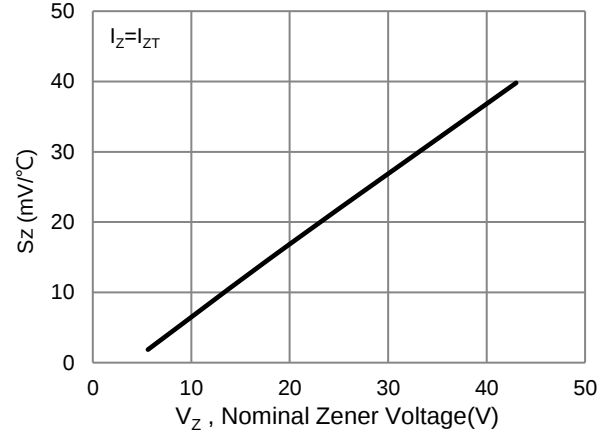


Fig.4 Typical Temperature coefficient

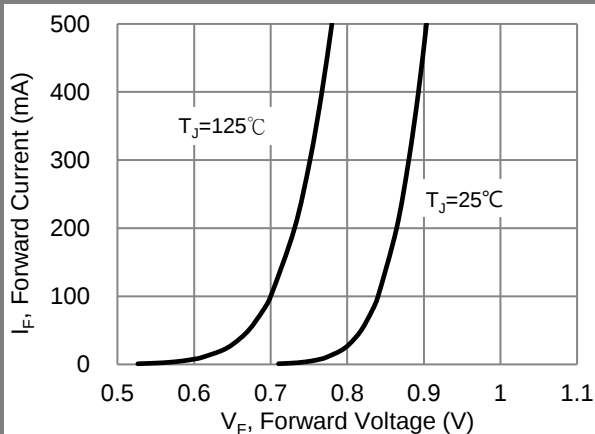


Fig.5 Typical Forward Characteristics

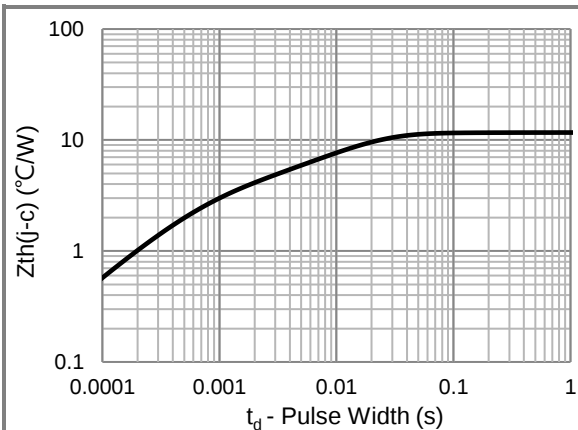


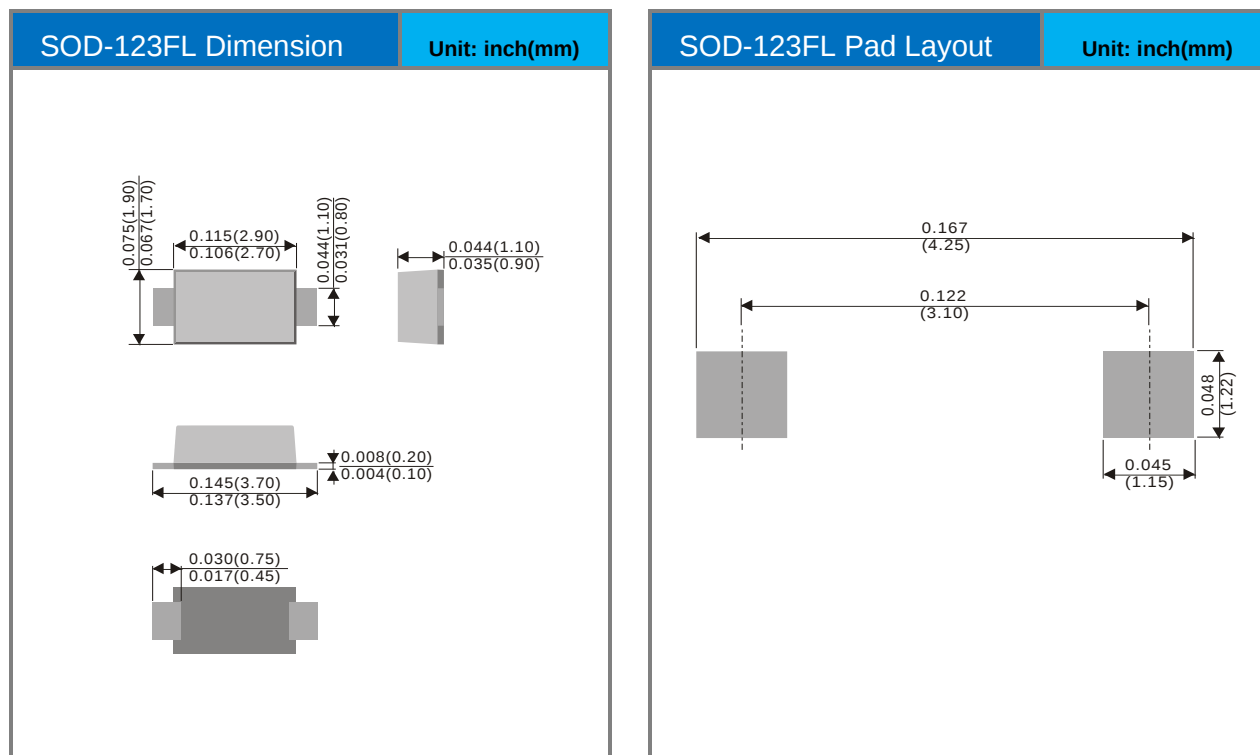
Fig.6 Typical Transient Thermal Impedance

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PZAH1ALxxxA-AU	SOD-123FL	3K pcs / 7" reel	See Table

Packaging Information & Mounting Pad Layout



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