



**Solid State Devices, Inc.**

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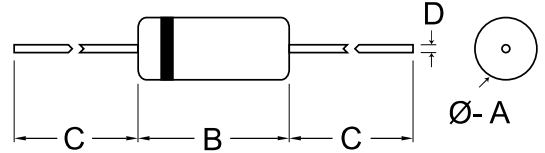
**DESIGNER'S DATA SHEET**

**FEATURES:**

- Hermetically Sealed in Glass
- Axial Lead Rated at 250 mW
- Surface Mount Rated at 400 mW
- Available in Axial (—), Round Tab Surface Mount (SM) and Square Tab Surface Mount (SMS) Versions
- Available to TX, TXV, and Space Levels <sup>5/</sup>
- Available in 10% and 5% Tolerances. For other Voltage Tolerances, Contact Factory.

**SZ25A2.4  
 thru  
 SZ25A43**

**250mW and 400mW  
 2.4 – 43 VOLTS  
 ZENER DIODES**

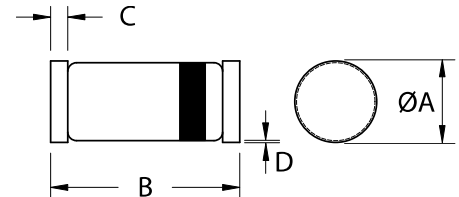


DIM	MIN.	MAX
A	.060"	.090"
B	.120"	.200"
C	1.00"	---
D	.018"	.022"

Maximum Ratings		Symbol	Value	Units
Nominal Zener Voltage		$V_Z$	2.4 - 43	V
Zener Current	Axial	$I_{ZM}$	5.5 - 95	mA
	SM, SMS		8.25 - 142.5	
Continuous Power	Axial	$P_D$	250	mW
	SM, SMS		400	
Operating and Storage Temp.		$T_{op}, T_{stg}$	-65 to +175	°C
Thermal Resistance, Junction to Lead, L=3/8" (for Axial)		$R_{\theta JL}$	500	°C/W
Junction to End Cap (for SM, SMS)		$R_{\theta JE}$	300	
Junction to Ambient (for All)		$R_{\theta JA}$	600	

**AXIAL (—)**

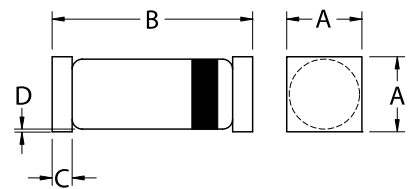
All dimensions are prior to soldering



DIM	MIN.	MAX.
A	.057"	.067"
B	.130"	.146"
C	.010"	.022"
D	Body to Tab Clearance: .001"	

**ROUND TAB (SM)**

All dimensions are prior to soldering



DIM	MIN.	MAX.
A	.070"	.078"
B	.175"	.210"
C	.023"	.027"
D	Body to Tab Clearance: .001"	

**SQUARE TAB (SMS)**

All dimensions are prior to soldering

**Part Number/Ordering Information <sup>4/</sup>**

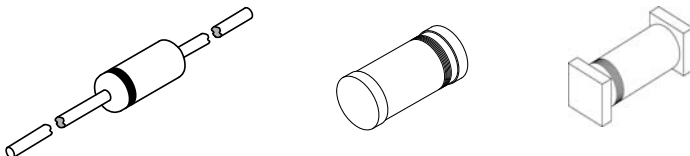
**SZ25**

**Screening <sup>5/</sup>**  
 — = Not Screened  
 TX = TX Level  
 TXV = TXV  
 S = S Level (for SM, use -S)

**Package Type <sup>3/</sup>**  
 — = Axial Leaded  
 SM = Surface Mount Round Tab  
 SMS = Surface Mount Square Tab

**Voltage/Family**  
 2.4 thru 43 = 2.4V thru 43V, See Table on Page 2

**Voltage Tolerance**  
 A = 10% Voltage Tolerance  
 B = 5% Voltage Tolerance



**NOTE:** All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

**DATA SHEET #: Z00001L**

**DOC**

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# SZ25A2.4 thru SZ25A43

## Electrical Characteristics @ 25°C (Unless Otherwise Specified)

PART NUMBER <sup>6/</sup>		Nominal Zener Voltage (note 1)	Zener Test Current	Maximum Zener Impedance (note 2)	Maximum Reverse Leakage Current			Maximum Continuous Current	
					IR @ VR	VR 10% (A Suffix)	VR 5% (B Suffix)	Axial (L)	Surface Mount (SM) and (SMS)
Voltage Tolerance		VZ @ IZT	IZT	ZZ @ IZT	IR @ VR	VR 10% (A Suffix)	VR 5% (B Suffix)	IZM	IZM
10%	5%	Volts	mA	Ohms	µA	Volts	Volts	mA	mA
SZ25A2.4	SZ25B2.4	2.4	10	30	100	0.95	1.0	95	142.5
SZ25A2.7	SZ25B2.7	2.7	10	30	75	0.95	1.0	90	135.0
SZ25A3.0	SZ25B3.0	3.0	10	30	50	0.95	1.0	85	127.5
SZ25A3.3	SZ25B3.3	3.3	10	28	25	0.95	1.0	80	120.0
SZ25A3.6	SZ25B3.6	3.6	10	24	15	0.95	1.0	75	112.5
SZ25A3.9	SZ25B3.9	3.9	10	23	10	0.95	1.0	70	105.0
SZ25A4.3	SZ25B4.3	4.3	10	22	5	0.95	1.0	65	97.5
SZ25A4.7	SZ25B4.7	4.7	10	20	5	1.9	2.0	60	90.0
SZ25A5.1	SZ25B5.1	5.1	10	18	5	1.9	2.0	55	82.5
SZ25A5.6	SZ25B5.6	5.6	5	14	5	2.9	3.0	50	75.0
SZ25A6.2	SZ25B6.2	6.2	5	10	5	3.8	4.0	45	67.5
SZ25A6.8	SZ25B6.8	6.8	5	8	3	4.8	5.0	35	52.5
SZ25A7.5	SZ25B7.5	7.5	5	10	3	5.7	6.0	31.8	47.7
SZ25A8.2	SZ25B8.2	8.2	5	12	3	6.2	6.5	29.0	43.5
SZ25A8.7	SZ25B8.7	8.7	5	14	3	6.2	6.5	27.4	41.1
SZ25A9.1	SZ25B9.1	9.1	5	16	3	6.7	7.0	26.2	39.3
SZ25A10	SZ25B10	10	5	18	3	7.6	8.0	24.8	37.2
SZ25A11	SZ25B11	11	5	24	2	8.0	8.4	21.6	32.4
SZ25A12	SZ25B12	12	5	32	1	8.7	9.1	20.4	30.6
SZ25A13	SZ25B13	13	5	36	0.5	9.4	9.9	19.0	28.5
SZ25A14	SZ25B14	14	5	40	0.1	9.5	10.0	17.5	26.25
SZ25A15	SZ25B15	15	2	126	0.1	10.5	11.0	16.3	24.45
SZ25A16	SZ25B16	16	2	128	0.1	11.4	12.0	15.4	23.10
SZ25A17	SZ25B17	17	2	130	0.1	12.4	13.0	14.5	21.75
SZ25A18	SZ25B18	18	2	132	0.1	13.3	14.0	13.2	19.80
SZ25A19	SZ25B19	19	2	134	0.1	13.3	14.0	12.5	18.75
SZ25A20	SZ25B20	20	2	136	0.1	14.3	15.0	11.9	17.85
SZ25A22	SZ25B22	22	2	138	0.1	16.2	17.0	10.8	16.20
SZ25A24	SZ25B24	24	2	140	0.1	17.1	18.0	9.9	14.85
SZ25A25	SZ25B25	25	2	142	0.1	18.1	19.0	9.5	14.25
SZ25A27	SZ25B27	27	2	144	0.1	20.0	21.0	8.8	13.20
SZ25A28	SZ25B28	28	2	146	0.1	20.0	21.0	8.5	12.75
SZ25A30	SZ25B30	30	2	150	0.1	22.0	23.0	7.9	11.85
SZ25A33	SZ25B33	33	2	155	0.1	24.0	25.0	7.2	10.80
SZ25A36	SZ25B36	36	2	160	0.1	26.0	27.0	6.6	9.90
SZ25A39	SZ25B39	39	2	165	0.1	29.0	30.0	6.1	9.15
SZ25A43	SZ25B43	43	2	170	0.1	31.0	33.0	5.5	8.25

**NOTES:**

- 1/ All zener voltages are measured with an automated test set using a 35 msec test time. Longer or shorter test time will have a corresponding effect on the measured value due to heating effects.
- 2/ Zener impedance is derived from the AC voltage divided by the AC current with RMS value of 10% of DC zener test current superimposed on the test current.
- 3/ SSDI standard marking consists of a contrasting color cathode dot or band. Part number information is included on packaging labels.
- 4/ For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.
- 5/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.
- 6/ Suffix "SM" for Round Tab Surface Mount and "SMS" for Square Tab Surface Mount.

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