Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

ST4462 – ST4506 Series

DESIGNER'S DATA SHEET

150 W Transient Voltage Suppressor 7.5 – 510 VOLTS

Part Number / Ordering Information [1/]

ST ___ ___ ___

Screening [2/] ___ = Not Screened
TX = TX Level
TXV = TXV Level
S= S Level (for SM, use –S)

Package: [5/] ___ = Axial Leaded
SM = Surface Mount Round Tab
SMS = Surface Mount Square Tab

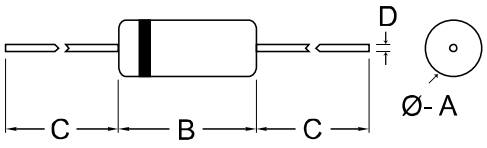
Type Number: 4462 - 4506

FEATURES:

- **Hermetically Sealed**
- **Low Reverse Leakage**
- **Voltage up to 510V**
- **Ultra Miniature**
- **TX, TXV, and Space Level Screening Available** [2/]
- **5 Times Greater Surge Than JAN13016 Series**
- **¼ Size of conventional 1 W Zeners**

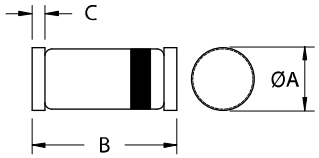
Maximum Ratings	Symbol	Value	Units
Peak pulse power dissipation with a 10/1000 μs waveform	P_{PPM}	150	**W**
Steady State Power Dissipation	P_D	3	**W**
Operating and Storage Temp.	T_{op} & T_{stg}	-65 to +175	**ºC**
Maximum Forward Voltage Drop I_F = 1.0 Apk, T_A = 25 ºC, pulsed	V_F	1.5	**V**
Thermal Resistance, (axial) Junction to Lead L=3/8"	$P_{\theta JL}$	42	**ºC/W**
Thermal Resistance, (end tab) Junction to Tab	$R_{\theta JE}$	32	**ºC/W**

AXIAL



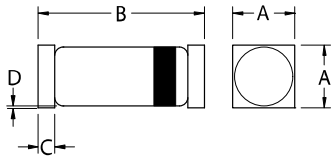
DIM	MIN	MAX
A	---	.085"
B	---	.170"
C	1.00"	---
D	.028"	.034"

SM



DIM	MIN	MAX
A	.075"	0.085"
B	.125"	0.150"
C	0.010"	0.022"

SMS



DIM	MIN	MAX
A	.090"	.100"
B	.175"	.215"
C	.022"	.028"
D	0.001"	—

Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773

ST4462 – ST4506 Series

Electrical Characteristics @ 25 ºC

Part Number	Nominal Zener Voltage[3/]	Minimum Reverse Breakdown Voltage[3/]	Test Current	Clamping Voltage		Maximum Reverse Standoff		Maximum Continuous Current[5/]	Typical Temperature Coefficient
				Max	Peak[4/]				
	V_Z @ I_{ZT}	V_Z @ I_{ZT}	I_{ZT}	Vc @ Ipp	@ Ipp	I_R	V_R	I_{RM}	Tc @ I_{ZT}
	Volts	Volts	mA	Volts	Amps	µA	Volts	mA	%/◦C
ST4462	7.5	7	100	11.3	13.3	1500	6.2	240	.07
ST4463	8.2	7.7	100	12.3	12.2	1200	6.8	220	.08
ST4464	9.1	8.5	50	13.3	11.3	100	7.5	200	.08
ST4465	10	9.4	50	14.8	10.1	20	8.2	180	.09
ST4466	11	10.4	50	15.7	9.6	5	9.1	150	.10
ST4467	12	11.4	50	17	8.8	5	10	140	.10
ST4468	13	12.4	50	18.9	7.9	5	11	120	.10
ST4469	15	13.8	50	20.9	7.2	5	12	110	.10
ST4470	16	15.3	25	22.9	6.6	5	13	100	.11
ST4471	18	16.8	25	25.6	5.9	5	15	90	.11
ST4472	20	18.8	25	28.4	5.3	5	16	80	.11
ST4473	22	20.8	25	31	4.8	5	18	75	.11
ST4474	24	22.8	25	33.8	4.4	5	20	65	.11
ST4475	27	25.1	25	38.1	3.9	5	22	60	.11
ST4476	30	28	25	42.2	3.6	5	24	55	.11
ST4477	33	31	25	46.2	3.2	5	27	50	.11
ST4478	36	34	10	50.1	3	5	30	40	.11
ST4479	39	37	10	54.1	2.8	5	33	35	.11
ST4480	43	40	10	60.7	2.5	5	36	33	.13
ST4481	47	44	10	65.5	2.3	5	39	30	.13
ST4482	51	48	10	70.8	2.1	5	43	27	.13
ST4483	56	52	10	78.6	1.9	5	47	24	.13
ST4484	62	58	10	86.5	1.7	5	51	21	.13
ST4485	68	64	10	94.4	1.6	5	56	18	.13
ST4486	75	70	10	103.5	1.5	5	62	18	.13
ST4487	82	77	10	114	1.3	5	68	15	.13
ST4488	91	85	5	126	1.2	5	75	15	.13
ST4489	100	94	5	139	1.1	5	82	12	.13
ST4490	110	104	5	152	1	5	91	12	.13
ST4491	120	114	5	167	0.9	5	100	12	.13
ST4492	130	124	5	185	0.81	5	110	12	.13
ST4493	150	138	5	204	0.73	5	120	11	.13
ST4494	160	153	5	224	0.67	5	130	11	.13
ST4495	180	168	5	249	0.6	5	150	9	.13
ST4496	200	188	5	276	0.54	5	160	9	.13
ST4497	220	208	2	305	0.5	5	180	9	.13
ST4498	240	228	2	336	0.45	5	200	7	.13
ST4499	270	251	2	380	0.4	5	220	7	.13
ST4500	300	280	2	419	0.36	5	240	6.5	.14
ST4501	330	310	2	459	0.33	5	270	6	.14
ST4502	360	340	2	498	0.3	5	300	5.5	.14
ST4503	390	370	2	537	0.28	5	330	4.8	.14
ST4504	430	400	2	603	0.25	5	360	4.2	.15
ST4505	470	440	2	655	0.23	5	390	4.2	.15
ST4506	510	480	2	707	0.21	5	430	3.6	.16

NOTES:

1 For ordering information, price, operating curves, and availability – contact factory.
2 Screening based on MIL-PRF-19500. Screening flows available on request.
3 All voltages are measured with an automated test set using a 35 msec test time. Longer or shorter test times will have a corresponding effect on the measured value due to heating effects.
4 Non-repetitive peak reverse current pulse.
5 Ratings based on T_L=100◦C @ L=3/8". For SM or SMS, multiply by 1.66.