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

SZ5706 thru SZ5890
And
SZ5110 thru SZ5227

DESIGNER'S DATA SHEET

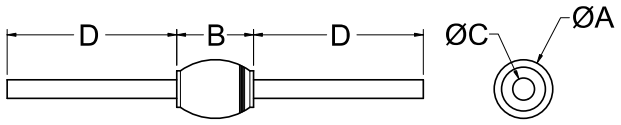
FEATURES:

- **Hermetically Sealed in Glass**
- **Rated at 5 W**
- **Available in Axial and Square Tab Surface Mount (SMS) version**
- **Available to TX, TXV, and Space Levels**
- **Replacement for Microsemi UZ5706 and UZ5806 Series.**

Note:

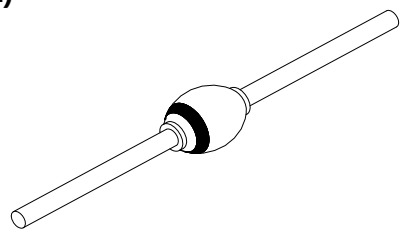
SSDI's Zeners offer standard Voltage Tolerance of ±10% and ±5%. For other Voltages and Voltage Tolerances, contact SSDI's Marketing Department.

5.0 WATT
6.8 – 270 VOLTS
ZENER DIODES

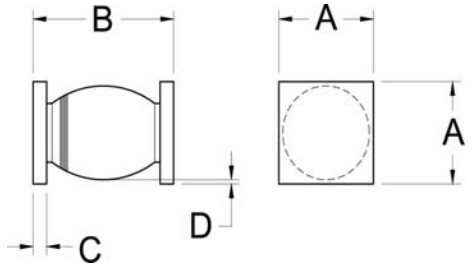


DIM	MIN.	MAX
A	---	.158"
B	---	.185"
C	.047"	.053"
D	1.00"	---

AXIAL(L)



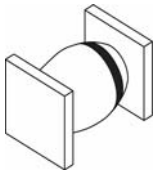
Maximum Ratings	Symbol	Value	Units
Nominal Zener Voltage	V_Z	6.8 - 270	**V**
Maximum Zener Current	I_{ZM}	16 - 675	**mA**
Forward Surge Current (8.3 msec Puls)	I_{FSM}	.30 - 40	**A**
Continuous Power	P_D	5.0	**W**
Operating and Storage Temp.	**Top &Tstg**	-65 to +175	**ºC**
Thermal Resistance, Junction to Lead L=3/8" (Axial)	$R_{\theta JL}$	22	**ºC/W**
Thermal Resistance, Junction to End Cap (SMS)	$R_{\theta JE}$	7	**ºC/W**



DIM	MIN.	MAX.
A	.155"	.185"
B	.190"	.220"
C	.020"	.030"
D	Body to Tab Clearance: .001"	

SQUARE TAB (SMS)

All dimensions are prior to soldering



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

DATA SHEET #: Z00007C | **DOC**

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SZ5706 thru SZ5890 And SZ5110 thru SZ5227

Electrical Characteristics

PART NUMBER (note 6)		ELECTRICAL SPECIFICATIONS @ 25°C							MAXIMUM RATINGS	
		Nominal Zener Voltage (note 1)	Zener Test Current	Maximum Zener Impedance (note 2)	Maximum Reverse Leakage Current			Typical Temperature Coefficient	Maximum Continuous (note 3)	Maximum Surge Current (note 4)
VOLTAGE TOLERANCE		VZ @ IZT	IZT	ZZ @ IZT	IR @ VR	VR		TC @ IZT	IZM	IS
10%	5%	VOLT	mA	Ohms	µA	10%(A)	5%(B)	%/°C	mA	Amps
SZ5806	SZ5706	6.8	175	1.0	500	4.9	5.2	.05	675	40
SZ5807	SZ5707	7.5	175	1.5	400	5.4	5.7	.06	620	32
SZ5808	SZ5708	8.2	150	1.5	200	5.9	6.2	.06	570	24
SZ5809	SZ5709	9.1	150	2.0	100	6.6	6.9	.06	510	22
SZ5810	SZ5710	10	125	2.0	75	7.2	7.6	.07	470	20
SZ5812	SZ5712	12	100	2.5	50	8.6	9.1	.07	385	18
SZ5813	SZ5713	13	100	3.0	25	9.3	9.9	.08	350	16
SZ5814	SZ5714	14	100	3.0	20	10.1	10.6	.08	320	14
SZ5815	SZ5715	15	75	3.5	15	10.8	11.4	.08	300	12
SZ5816	SZ5716	16	75	3.5	10	11.5	12.2	.08	275	10
SZ5818	SZ5718	18	65	4.0	10	12.9	13.7	.085	255	9.0
SZ5820	SZ5720	20	65	4.5	10	14.4	15.2	.085	220	8.0
SZ5822	SZ5722	22	50	5.0	10	15.8	16.7	.085	195	7.0
SZ5824	SZ5724	24	50	5.0	10	17.3	18.2	.09	180	6.5
SZ5827	SZ5727	27	50	6.0	10	19.4	20.6	.09	155	6.0
SZ5830	SZ5730	30	40	8.0	10	21.6	22.8	.09	140	5.5
SZ5833	SZ5733	33	40	10	5	23.7	25.1	.09	130	5.0
SZ5836	SZ5736	36	30	11	5	25.9	27.4	.095	120	4.5
SZ5840	SZ5740	40	30	14	5	28.8	30.4	.095	105	4.0
SZ5845	SZ5745	45	30	20	5	32.4	34.2	.095	95	3.5
SZ5850	SZ5750	50	25	25	5	36.0	38.0	.095	85	3.0
SZ5856	SZ5756	56	20	35	5	40.3	42.6	.095	80	2.8
SZ5860	SZ5760	60	20	40	5	43.2	45.7	.100	75	2.5
SZ5870	SZ5770	70	20	50	5	50.5	53.3	.100	65	2.3
SZ5875	SZ5775	75	15	55	5	54.0	56.0	.100	60	2.0
SZ5880	SZ5780	80	15	80	5	57.7	60.8	.100	55	1.8
SZ5890	SZ5790	90	15	90	5	64.8	68.5	.100	50	1.6
SZ5210	SZ5110	100	10	100	5	72.0	76.0	.100	45	1.4
SZ5211	SZ5111	110	10	125	5	79.2	83.6	.100	40	1.2
SZ5212	SZ5112	120	10	170	5	86.4	91.2	.100	38	1.0
SZ5213	SZ5113	130	10	190	5	93.6	98.8	.105	35	0.80
SZ5214	SZ5114	140	8	230	5	101.0	106.0	.105	33	0.80
SZ5215	SZ5115	150	8	330	5	108.0	114.0	.105	31	0.75
SZ5216	SZ5116	160	8	350	5	115.0	122.0	.105	30	0.70
SZ5217	SZ5117	170	8	380	5	122.0	129.0	.105	27	0.65
SZ5218	SZ5118	180	5	450	5	129	137	.110	25	0.60
SZ5219	SZ5119	190	5	470	5	137	144	.110	24	0.55
SZ5220	SZ5120	200	5	500	5	144	152	.110	22	0.50
SZ5222	SZ5122	220	5	550	5	158	167	.115	20	0.45
SZ5224	SZ5124	240	5	650	5	173	182	.115	18	0.40
SZ5226	SZ5126	260	5	750	5	187	198	.120	17	0.35
SZ5227	SZ5127	270	4	850	5	202	213	.120	16	0.30

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) Ratings based on maximum zener voltage of individual units (leaded units).
4) Figures shown are for a peak sinusoidal surge current of 8.3 msec duration, non-repetitive. The 8.3 msec square pulse rating is 71% of the value shown.
5) SSDI standard marking consists of a contrasting color cathode dot or band. Part number information is included on packaging labels.
6) Suffix "L" for axial lead, "SM" for surface mount Round Tab. "SMS" for Square Tab.

For optional high reliability screening or higher nominal zener voltages, consult SSDI MARKETING Department.