



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

DESIGNER'S DATA SHEET

FEATURES:

- Hermetically Sealed in Glass
- Rated at 1.0 W
- Available in Axial, Round Tab Surface Mount (SM) and Square Tab Surface Mount (SMS) version
- Available to TX, TXV, and Space Levels^{5/}
- Zener Voltage, 10%, 5%, 2% or 1% Tolerance
- Replacement for UZ8706 thru UZ8220 device types

Maximum Ratings	Symbol	Value	Units
Nominal Zener Voltage	V _Z	6.8 - 200	V
Maximum Zener Current	I _{ZM}	4.7 - 140	mA
Maximum Zener Surge Current (8.3 msec Pulse)	I _{ZSM}	.056 - 5.0	A
Continuous Power L = 0.375" T _L ≤ 75°C	P _D	1.0	W
Operating and Storage Temp.	Top & Tstg	-65 to +175	°C
Thermal Resistance, Junction to Lead, L = 3/8" (Axial)	R _{θJL}	100	°C/W
Thermal Resistance, Junction to End Cap (SM / SMS)	R _{θJE}	60	°C/W

Part Number/Ordering Information^{4/}

SZ8

L Screening^{5/}

— = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level (for SM, use -S)

Package Type

— = Axial Leaded

SM = Surface Mount Round Tab

SMS = Surface Mount Square Tab

Voltage/Family

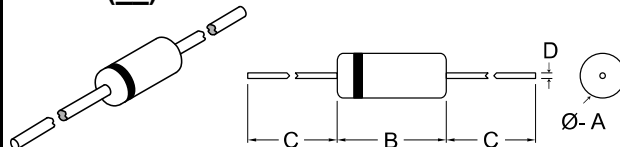
See Table (Next Page) *

* Higher Voltages Available consult Factory

SZ8706 Series

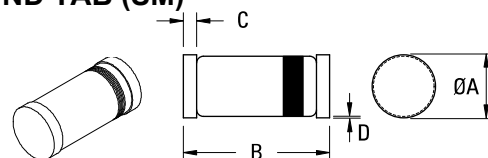
1.0 WATT 6.8 – 200 VOLTS ZENER DIODES

AXIAL (—)



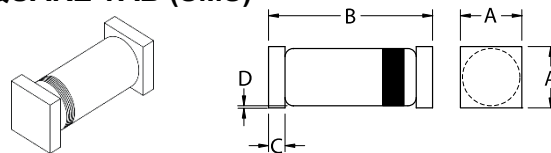
DIM	MIN.	MAX
A	.075"	.110"
B	---	.185"
C	1.00"	---
D	.027"	.032"

ROUND TAB (SM)



DIM	MIN.	MAX.
A	.077"	.087"
B	.130"	.146"
C	.010"	.022"
D	.001"	---

SQUARE TAB (SMS)



DIM	MIN.	MAX.
A	.090"	.100"
B	.175"	.215"
C	.020"	.028"
D	.001"	---

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 #: Z00019B

DOCX

**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

SZ8706 Series**Electrical Characteristics @ 25°C**

PART NUMBER		Nominal Zener Voltage 1/	Zener Test Current	Maximum Zener Impedance $\Delta I_z = 10\%$	Maximum Continuous Current 2/	Typical Temperature Coefficient	Maximum Surge Current 3/	Maximum Reverse Leakage Current		
Tolerance +/-		VZ @ IZT	IZT	ZZ @ IZT	IZM	TC	IZSM	VR (5%)	VR (10%)	IR
5%	10%	V	mA	Ω	mA	% / °C	A	V	V	μA
SZ8706	SZ8806	6.8	37	3.5	140	0.04	5.00	5.2	4.9	50
SZ8707	SZ8807	7.5	34	4.0	125	0.04	4.50	5.7	5.4	30
SZ8708	SZ8808	8.2	31	4.5	115	0.05	3.90	6.2	5.9	10
SZ8709	SZ8809	9.1	28	5.0	105	0.05	3.37	6.9	6.6	3.0
SZ8710	SZ8810	10	25	7.0	95	0.06	2.77	7.6	7.2	2.0
SZ8712	SZ8812	12	23	9.0	85	0.07	2.25	9.1	8.6	1.0
SZ8713	SZ8813	13	21	10	80	0.07	2.25	9.9	9.3	0.5
SZ8714	SZ8814	14	19	12	74	0.07	2.25	10.6	10.1	0.5
SZ8715	SZ8815	15	17	14	63	0.07	1.65	11.4	10.8	0.5
SZ8716	SZ8816	16	15.5	16	60	0.07	1.65	12.1	11.5	0.5
SZ8718	SZ8818	18	14.0	20	52	0.08	1.12	13.7	12.9	0.5
SZ8720	SZ8820	20	12.5	22	47	0.08	1.12	15.2	14.4	0.5
SZ8722	SZ8822	22	11.5	23	43	0.08	1.12	16.7	15.8	0.5
SZ8724	SZ8824	24	10.5	25	40	0.08	0.825	18.2	17.3	0.5
SZ8727	SZ8827	27	9.5	35	35	0.09	0.825	20.5	19.4	0.5
SZ8730	SZ8830	30	8.5	40	31	0.09	0.825	22.8	21.6	0.5
SZ8733	SZ8833	33	7.5	45	28	0.09	0.675	25.1	23.7	0.5
SZ8736	SZ8836	36	7.0	50	26	0.09	0.562	27.3	25.9	0.5
SZ8740	SZ8840	40	6.5	62	24	0.095	0.562	30.4	28.8	0.5
SZ8745	SZ8845	45	6.0	75	22	0.095	0.450	34.2	32.4	0.5
SZ8750	SZ8850	50	5.0	85	20	0.095	0.450	38.0	36.0	0.5
SZ8756	SZ8856	56	4.5	110	17	0.095	0.390	42.5	40.3	0.5
SZ8760	SZ8860	60	4.0	125	15	0.095	0.337	45.6	43.2	0.5
SZ8770	SZ8870	70	3.7	150	14	0.095	0.337	53.2	50.4	0.5
SZ8775	SZ8875	75	3.3	175	12	0.095	0.277	57.0	54.0	0.5
SZ8780	SZ8880	80	3.0	200	11	0.095	0.225	60.8	57.6	0.5
SZ8790	SZ8890	90	2.8	250	10	0.095	0.225	68.4	64.8	0.5
SZ8110	SZ8210	100	2.5	350	9.5	0.100	0.225	76.0	72.0	0.5
SZ8111	SZ8211	110	2.3	450	8.5	0.100	0.165	83.6	79.2	0.5
SZ8112	SZ8212	120	2.0	550	8.0	0.100	0.112	91.2	86.4	0.5
SZ8113	SZ8213	130	1.9	700	7.2	0.100	0.112	98.8	93.6	0.5
SZ8114	SZ8214	140	1.8	850	6.8	0.100	0.112	106	100	0.5
SZ8115	SZ8215	150	1.7	1000	6.3	0.100	0.112	114	108	0.5
SZ8116	SZ8216	160	1.6	1100	5.9	0.100	0.082	121	115	0.5
SZ8117	SZ8217	170	1.5	1200	5.6	0.100	0.082	129	122	0.5
SZ8118	SZ8218	180	1.4	1300	5.2	0.100	0.056	137	129	0.5
SZ8119	SZ8219	190	1.3	1400	5.0	0.100	0.056	144	137	0.5
SZ8120	SZ8220	200	1.2	1500	4.7	0.100	0.056	152	144	0.5

NOTES:

- 1/ All zener voltages are measured with an automated test set using a 20-50 msec test time. Longer or shorter test time will have a corresponding effect on the measured value due to heating effects.
- 2/ Ratings based on maximum zener voltage of individual units (leadless units).
- 3/ Sinusoidal surge current of 8.3 msec duration, non-repetitive. The 8.3 msec square pulse rating is 71% of the value shown.
- 4/ For ordering information, price, and availability - contact factory.
- 5/ Screening based on MIL-PRF-19500. Screening flows available on request.

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

DATA SHEET #: Z00019B**DOCX**