

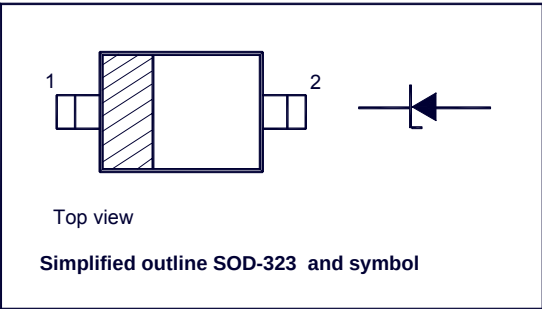
STZ8000 Series

SILICON PLANAR ZENER DIODES

For stabilization of power supply application

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

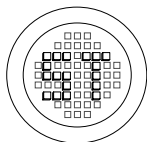


Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	300	mW
Repetitive Peak Forward Current	I_{FRM}	200	mA
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^{\circ}\text{C}$

Characteristics at $T_{\text{amb}} = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3	K/mW
Forward Voltage at $I_F = 10\text{ mA}$	V_F	1	V



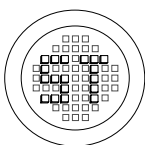
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(Subsidiary of Semtech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 02/08/2006

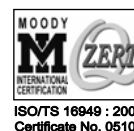
STZ8000 Series

Type	Marking Code	Zener Voltage Range ¹⁾		Dynamic Impedance			Reverse Leakage Current		Temp. coefficient of Zener Voltage
		I_{ZT} mA	for V_Z V	r_{ZT} Ω (Max.)	r_{ZK} at I_{ZK} Ω (Max.)	I_{ZK} mA	I_R at V_R μA (Max.)	V_R V	
STZ8024	1A1	5	2.28...2.6	100	-	-	120	1	-1.6
STZ8027	1B1	5	2.5...2.9	110	-	-	120	1	-2
STZ8027A	1C1		2.5...2.75						
STZ8027B	1D1		2.65...2.9						
STZ8030	1E1	5	2.8...3.2	120	-	-	50	1	-2.1
STZ8030A	1F1		2.8...3.05						
STZ8030B	1G1		2.95...3.2						
STZ8033	1H1	5	3.1...3.5	130	-	-	20	1	-2.4
STZ8033A	1J1		3.1...3.35						
STZ8033B	1K1		3.25...3.5						
STZ8036	1L1	5	3.4...3.8	130	-	-	10	1	-2.4
STZ8036A	1M1		3.4...3.65						
STZ8036B	1N1		3.55...3.8						
STZ8039	1P1	5	3.7...4.1	130	-	-	10	1	-2.5
STZ8039A	1Q1		3.7...3.97						
STZ8039B	1R1		3.87...4.1						
STZ8043	1S1	5	4...4.6	130	-	-	10	1	-2.5
STZ8043A	1T1		4.03...4.26						
STZ8043B	1U1		4.17...4.4						
STZ8043C	1W1		4.31...4.54						
STZ8047	1X1	5	4.4...5	80	800	1	2	1	-1.4
STZ8047A	1Y1		4.45...4.69						
STZ8047B	1Z1		4.59...4.83						
STZ8047C	2A1		4.74...4.99						
STZ8051	2B1	5	4.8...5.4	60	500	1	2	1.5	-0.8
STZ8051A	2C1		4.87...5.12						
STZ8051B	2D1		5...5.26						
STZ8051C	2E1		5.14...5.4						
STZ8056	2F1	5	5.3...6	40	200	0.5	1	2.5	1.2
STZ8056A	2G1		5.3...5.58						
STZ8056B	2H1		5.48...5.76						
STZ8056C	2J1		5.66...5.95						
STZ8062	2K1	5	5.8...6.6	30	100	0.5	1	3	2.3
STZ8062A	2L1		5.85...6.15						
STZ8062B	2M1		6.05...6.36						
STZ8062C	2N1		6.24...6.56						
STZ8068	2P1	5	6.4...7.2	20	60	0.5	0.5	3.5	3
STZ8068A	2Q1		6.44...6.77						
STZ8068B	2R1		6.64...6.98						
STZ8068C	2S1		6.85...7.2						
STZ8075	2T1	5	7...7.9	20	60	0.5	0.5	4	4
STZ8075A	2U1		7.07...7.43						
STZ8075B	2W1		7.29...7.67						
STZ8075C	2X1		7.51...7.89						



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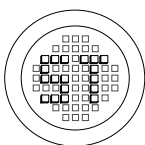
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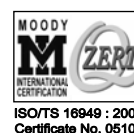
STZ8000 Series

Type	Marking Code	Zener Voltage Range ¹⁾		Dynamic Impedance			Reverse Leakage Current		Temp. coefficient of Zener Voltage
		I_{ZT} mA	for V_Z V	r_{ZT} Ω (Max.)	r_{ZK} at I_{ZK} Ω (Max.)	I_{ZK} mA	I_R at V_R μA (Max.)	V_R V	
STZ8082	2Y1	5	7.7...8.7	20	60	0.5	0.5	5	4.6
STZ8082A	2Z1		7.77...8.17						
STZ8082B	3A1		8.03...8.43						
STZ8082C	3B1		8.29...8.7						
STZ8091	3C1	5	8.5...9.6	20	60	0.5	0.5	6	5.5
STZ8091A	3D1		8.58...9.02						
STZ8091B	3E1		8.87...9.33						
STZ8091C	3F1		9.14...9.6						
STZ8100	3G1	5	9.4...10.6	30	60	0.5	0.1	7	6.4
STZ8100A	3H1		9.44...9.92						
STZ8100B	3J1		9.75...10.25						
STZ8100C	3K1		10.07...10.59						
STZ8110	3L1	5	10.4...11.6	30	60	0.5	0.1	8	7.4
STZ8110A	3M1		10.4...10.94						
STZ8110B	3N1		10.73...11.28						
STZ8110C	3P1		11.05...11.6						
STZ8120	3Q1	5	11.4...12.7	30	80	0.5	0.1	9	8.4
STZ8120A	3R1		11.4...11.96						
STZ8120B	3S1		11.73...12.33						
STZ8120C	3T1		12.06...12.68						
STZ8130	3U1	5	12.4...14.1	35	80	0.5	0.1	10	9.4
STZ8130A	3W1		12.4...12.99						
STZ8130B	3X1		12.73...13.4						
STZ8130C	3Y1		13.25...14.08						
STZ8140	3Z1	5	13.65...14.35	40	80	0.5	0.1	10	10
STZ8150	4A1	5	13.9...15.6	40	80	0.5	0.1	11	11.4
STZ8150A	4B1		13.9...14.76						
STZ8150B	4C1		14.6...15.35						
STZ8150C	4D1		14.95...15.6						
STZ8160	4E1	5	15.3...17.1	50	80	0.5	0.1	12	12.4
STZ8160A	4F1		15.3...16.09						
STZ8160B	4G1		15.7...16.5						
STZ8160C	4H1		16.26...17.1						
STZ8180	4J1	5	16.9...19.1	60	80	0.5	0.1	13	14.4
STZ8180A	4K1		16.9...17.76						
STZ8180B	4L1		17.55...18.45						
STZ8180C	4M1		18.2...19.1						
STZ8200	4N1	5	18.8...21.2	80	100	0.5	0.1	15	16.4
STZ8200A	4P1		18.85...19.81						
STZ8200B	4Q1		19.5...20.5						
STZ8200C	4R1		20.15...21.19						
STZ8220	4S1	5	20.8...23.3	80	100	0.5	0.1	17	18.4
STZ8220A	4T1		20.8...21.86						
STZ8220B	4U1		21.45...22.55						
STZ8220C	4W1		22.1...23.24						



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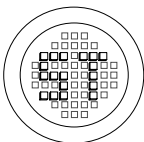
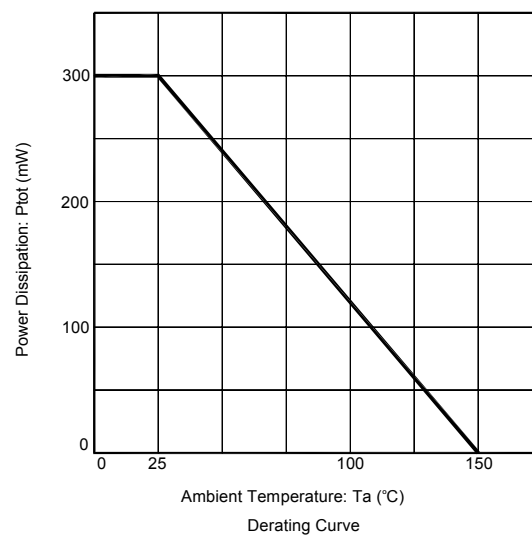


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STZ8000 Series

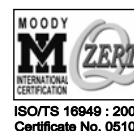
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		I_{ZT} mA	for V_Z V	r_{ZT} Ω (Max.)	r_{ZK} at I_{ZK} Ω (Max.)	I_{ZK} mA	I_R at V_R μ A(Max.)	V_R V	
STZ8240	4X1	5	22.8...25.6	100	120	0.5	0.1	19	20.4
STZ8240A	4Y1		22.8...23.97						
STZ8240B	4Z1		23.5...24.7						
STZ8240C	5A1		24.35...25.6						
STZ8270	5B1	2	25.1...28.9	120	120	0.5	0.1	21	23.4
STZ8270A	5C1		25.3...26.7						
STZ8270B	5D1		26.3...27.7						
STZ8270C	5E1		27.3...28.7						
STZ8300	5F1	2	28...32	160	160	0.5	0.1	23	26.6
STZ8300A	5G1		28.3...29.7						
STZ8300B	5H1		29.3...30.8						
STZ8300C	5J1		30.2...31.8						
STZ8330	5K1	2	31...35	200	200	0.5	0.1	25	29.7
STZ8330A	5L1		31.2...32.8						
STZ8330B	5M1		32.2...33.8						
STZ8330C	5N1		33.2...34.9						
STZ8360	5P1	2	34...38	250	250	0.5	0.1	27	33
STZ8360A	5Q1		34.1...35.9						
STZ8360B	5R1		35.1...36.9						
STZ8360C	5S1		36.1...37.9						
STZ8390	5T1	2	37...41	300	300	0.5	2	30	35.6
STZ8390A	5U1		37.1...39						
STZ8390B	5W1		38...40						
STZ8390C	5X1		39...41						

¹⁾ V_Z is tested with pulses (20 ms).



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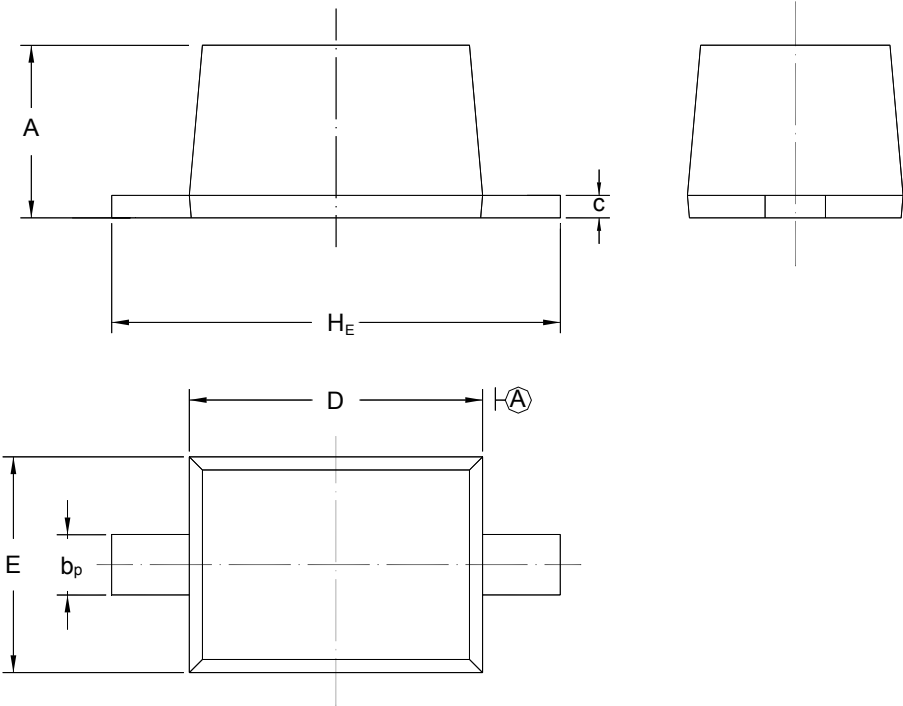
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STZ8000 Series

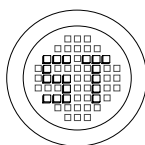
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b _p	C	D	E	H _E
mm	1.10 0.80	0.40 0.25	0.15 0.00	1.80 1.60	1.35 1.15	2.80 2.30



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

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