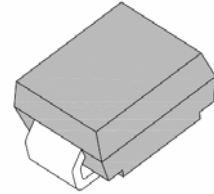


2.0W Surface Mount Zener Diodes

Features

- Low profile package
- Built-in strain relief
- Low inductance
- Complete voltage range 6.8 to 51V
- Typical I_D less than 1.0 μ A above 11V
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Low leakage current
- RoHS compliant



**SMB
(DO-214AA)**



Mechanical Data

Case:	JEDEC SMB (DO-214AA), molded plastic over passivated junction
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Solder plated, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Weight:	0.003 ounce, 0.093 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	Value	Unit	Conditions
P_D	Peak Pulse Power Dissipation on TA=50°C	2.0	W	Note
	Derate above 70°C	24	mW/°C	
I_{FSM}	Peak Forward Surge Current	15	A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to 150	°C	

Note: Mounted on 5.0mm² (.013mm thick) land areas.

2.0W Surface Mount Zener Diodes

Z2SMB6.8B - Z2SMB51B

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

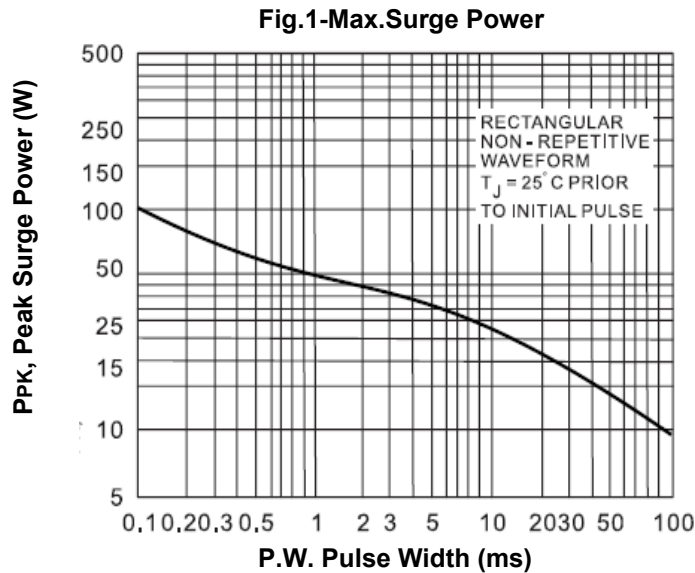
Part NO.	Marking Code	Nominal Zener Voltage @ I _{ZT}				Max. Zener Impedance (Ω)			Max. Reverse Leakage Current I _R @ V _R	
		V _Z (V)			I _{ZT} (mA)	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK} (mA)	I _R (μA)	V _R (V)
		Nom.	Min.	Max.						
Z2SMB6.8B	2006	6.8	6.46	7.14	73.5	2	700	1.00	5.0	4.0
Z2SMB7.5B	2007	7.5	7.13	7.88	66.5	2	700	0.50	5.0	5.0
Z2SMB8.2B	2008	8.2	7.79	8.61	61.0	2	700	0.50	5.0	6.0
Z2SMB8.7B	20A8	8.7	8.27	9.14	58.0	2	700	0.50	4.0	6.6
Z2SMB9.1B	2009	9.1	8.65	9.56	55.0	3	700	0.50	3.0	7.0
Z2SMB10B	2010	10	9.50	10.50	50.0	4	700	0.25	3.0	7.6
Z2SMB11B	2011	11	10.45	11.55	45.5	4	700	0.25	1.0	8.4
Z2SMB12B	2012	12	11.40	12.60	41.5	5	700	0.25	1.0	9.1
Z2SMB13B	2013	13	12.35	13.65	38.5	5	700	0.25	0.5	9.9
Z2SMB14B	2014	14	13.30	14.70	35.7	6	700	0.25	0.5	10.6
Z2SMB15B	2015	15	14.25	15.75	33.4	7	700	0.25	0.5	11.4
Z2SMB16B	2016	16	15.20	16.80	31.2	8	700	0.25	0.5	12.2
Z2SMB17B	2017	17	16.15	17.85	29.4	9	750	0.25	0.5	13.0
Z2SMB18B	2018	18	17.10	18.90	27.8	10	750	0.25	0.5	13.7
Z2SMB19B	2019	19	18.05	19.95	26.3	11	750	0.25	0.5	14.4
Z2SMB20B	2020	20	19.00	21.00	25.0	11	750	0.25	0.5	15.2
Z2SMB22B	2022	22	20.90	23.10	22.8	12	750	0.25	0.5	16.7
Z2SMB24B	2024	24	22.80	25.20	20.8	13	750	0.25	0.5	18.2
Z2SMB25B	2025	25	23.75	26.25	20.0	14	750	0.25	0.5	19.0
Z2SMB27B	2027	27	25.65	28.35	18.5	18	750	0.25	0.5	20.6
Z2SMB28B	2028	28	26.60	29.40	17.0	18	750	0.25	0.5	21.3
Z2SMB30B	2030	30	28.50	31.50	16.6	20	1000	0.25	0.5	22.5
Z2SMB33B	2033	33	31.35	34.65	15.1	23	1000	0.25	0.5	25.1
Z2SMB36B	2036	36	34.20	37.80	13.9	25	1000	0.25	0.5	27.4
Z2SMB39B	2039	39	37.05	40.95	12.8	30	1000	0.25	0.5	29.7
Z2SMB43B	2043	43	40.85	45.15	11.6	35	1500	0.25	0.5	32.7
Z2SMB47B	2047	47	44.65	49.35	10.6	40	1500	0.25	0.5	35.8
Z2SMB51B	2051	51	48.45	53.55	9.8	48	1500	0.25	0.5	38.8

Note: Suffix "B" indicates $\pm 5\%$ tolerance.

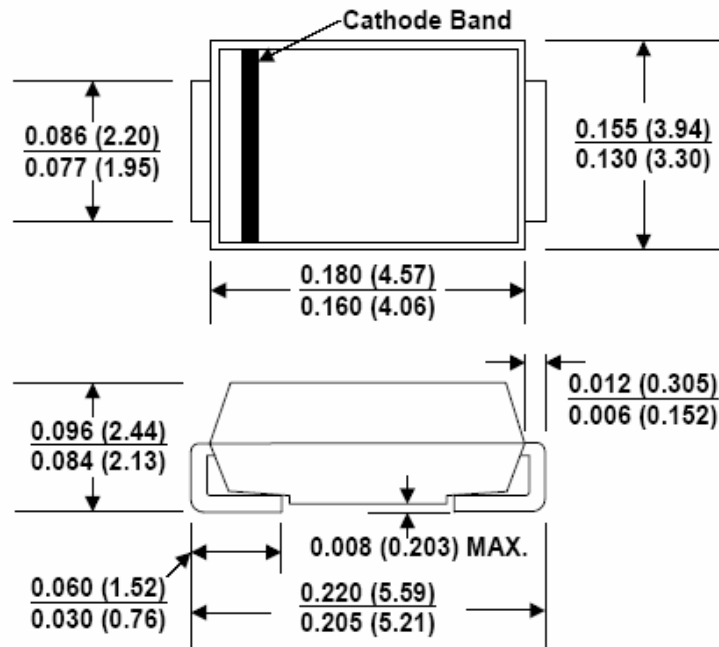
2.0W Surface Mount Zener Diodes

Z2SMB6.8B - Z2SMB51B

Typical Characteristics Curves



Dimensions in inch (mm)



SMB (DO-214AA)

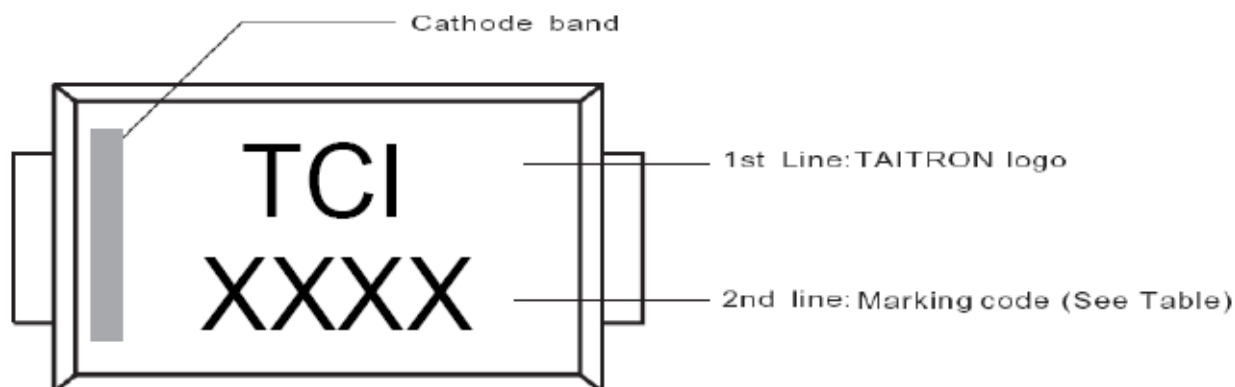


Rev. A/AH 2008-06-16

2.0W Surface Mount Zener Diodes

Z2SMB6.8B - Z2SMB51B

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