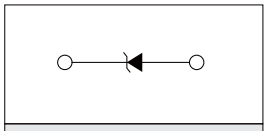
FEATURES

> 3.0W Power Dissipation
> Ideally Suited for Automated Assembly
> 3.3V - 200V Nominal Zener Voltage Range
> Standard V_Z Tolerance is ± 5%
> RoHS compliant

DO-214AA PACKAGE



SCHEMATIC SYMBOL

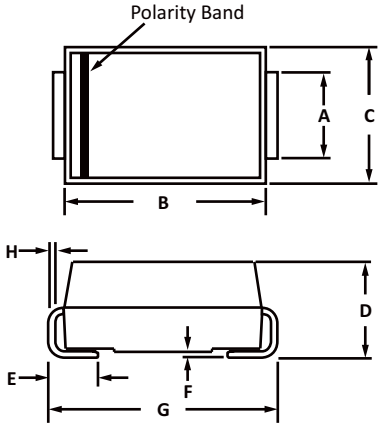
MECHANICAL DATA

> Case: Molded plastic
> Epoxy: UL 94V-0 rate flame retardant
> Lead: Solderable per MIL-STD-750, method 2026
> Polarity: Color band denotes cathode end except Bipolar
> Mounting position: Any
> Weight: 0.096 grams

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS(T_A=25°C UNLESS OTHERWISE SPECIFIED.)

PARAMETER	SYMBOL	VALUE	UNIT
Forward Voltage @I_F = 200mA	V_F	1.5	V
Zener Current	I_{ZM}	P_D/V_Z	mA
Power Dissipation @ T_L = 75°C	P_D	3.0	W
Operating junction and storage temperature range	T_J, T_{STG}	-55 ~ +150	°C

DO-214AA(SMB) PACKAGE DIMENSIONS

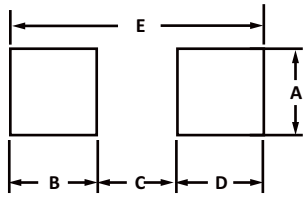


SMB PACKAGE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.96	2.20	0.077	0.087
B	4.35	4.85	0.171	0.191
C	3.30	3.94	0130	0.155
D	2.20	2.50	0.087	0.098
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	5.08	5.59	0.200	0.220
H	0.15	0.30	0.006	0.012

NOTES:

1.Dimensions are exclusive of mold flash and metal burrs
2.Polarity Band is only applicable to the unidirectional package

RECOMMENDED PAD LAYOUT DIMENSIONS



RECOMMENDED PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.20	-	0.087	-
B	1.45	-	0.057	-
C	-	2.55	-	0.100
D	1.45	-	0.057	-
E	5.60 REF		0.220 REF	

ELECTRICAL CHARACTERISTICS

PART NUMBER	ZENER VOLTAGE RANGE(Note 1)			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT(Note 1)		MAX. I_{ZM} (Note 2)
	V_Z@I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R@V_R	V_R	
	Typ.(V)	Min.(V)	Max.(V)	mA	Ω	Ω	mA	uA	V	mA
1SMB5913B	3.30	3.13	3.47	113.6	10.0	500	1.0	100	1.0	454
1SMB5914B	3.60	3.42	3.78	104.2	9.00	500	1.0	75	1.0	416
1SMB5915B	3.90	3.70	4.10	96.1	7.50	500	1.0	25	1.0	384
1SMB5916B	4.30	4.08	4.52	87.2	6.00	500	1.0	5	1.0	348
1SMB5917B	4.70	4.46	4.94	79.8	5.00	500	1.0	5	1.5	319
1SMB5920B	6.20	5.89	6.51	60.5	2.00	200	1.0	5	4.0	241
1SMB5921B	6.80	6.46	7.14	55.1	2.50	200	1.0	5	5.2	220
1SMB5922B	7.50	7.12	7.88	50.0	3.00	400	0.5	5	6.0	200
1SMB5923B	8.20	7.79	8.61	45.7	3.50	400	0.5	5	6.5	182
1SMB5924B	9.10	8.64	9.56	41.2	4.00	500	0.5	5	7.0	164
1SMB5925B	10.0	9.50	10.50	37.5	4.50	500	0.25	5	8.0	150
1SMB5926B	11.0	10.45	11.55	34.1	5.50	550	0.25	1	8.4	136
1SMB5927B	12.0	11.40	12.60	31.2	6.50	550	0.25	1	9.1	125
1SMB5928B	13.0	12.35	13.65	28.8	7.00	550	0.25	1	9.9	115
1SMB5929B	15.0	14.25	15.75	25.0	9.00	600	0.25	1	11.4	100
1SMB5930B	16.0	15.20	16.80	23.4	10.00	600	0.25	1	12.2	93
1SMB5931B	18.0	17.10	18.90	20.8	12.00	650	0.25	1	13.7	83
1SMB5932B	20.0	19.00	21.00	18.7	14.00	650	0.25	1	15.2	75
1SMB5933B	22.0	20.90	23.10	17.0	17.50	650	0.25	1	16.7	68
1SMB5934B	24.0	22.80	25.20	15.6	19.00	700	0.25	1	18.2	62
1SMB5935B	27.0	25.65	28.35	13.9	23.00	700	0.25	1	20.6	55
1SMB5936B	30.0	28.50	31.50	12.5	28.00	750	0.25	1	22.8	50
1SMB5937B	33.0	25.65	28.35	13.9	33.00	800	0.25	1	20.6	55
1SMB5938B	36.0	28.50	31.50	12.5	38.00	850	0.25	1	22.8	50
1SMB5939B	39.0	37.05	40.95	11.4	45.00	900	0.25	1	25.1	45
1SMB5940B	43.0	40.85	45.15	10.4	53.00	950	0.25	1	27.4	41
1SMB5941B	47.0	44.65	49.35	9.6	67.00	1000	0.25	1	29.7	38
1SMB5942B	51.0	48.45	53.55	8.7	70.00	1100	0.25	1	32.7	34
1SMB5943B	56.0	53.20	58.80	8.0	86.00	1300	0.25	1	35.8	31
1SMB5944B	62.0	58.90	71.40	7.3	100.0	1500	0.25	1	38.8	29
1SMB5945B	68.0	64.60	78.75	6.7	120.0	1700	0.25	1	42.6	26
1SMB5946B	75.0	71.25	78.75	6.0	140.0	2000	0.25	1	47.1	24
1SMB5947B	82.0	77.90	86.10	5.5	160.0	2500	0.25	1	51.7	22
1SMB5948B	91.0	86.45	95.55	5.0	200.0	3000	0.25	1	56.0	20
1SMB5949B	100.0	95.00	105.0	4.6	250.0	3100	0.25	1	62.2	18
1SMB5950B	110.0	104.5	115.5	4.1	300.0	4000	0.25	1	69.2	16

ELECTRICAL CHARACTERISTICS

PART NUMBER	ZENER VOLTAGE RANGE(Note 1)			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT(Note 1)		MAX. I_{ZM} (Note 2)
	V_Z@I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R@V_R	V_R	
	Typ.(V)	Min.(V)	Max.(V)	mA	Ω	Ω	mA	uA	V	mA
1SMB5951B	120.0	114.0	128.0	3.1	380.0	4500	0.25	1	91.2	12
1SMB5952B	130.0	123.5	136.5	2.9	450.0	5000	0.25	1	98.8	11
1SMB5953B	150.0	142.5	157.5	2.5	600.0	6000	0.25	1	114.0	10
1SMB5954B	160.0	152.0	168.0	2.3	700.0	6500	0.25	1	121.6	9
1SMB5955B	180.0	171.0	189.0	2.1	900.0	7000	0.25	1	136.8	8
1SMB5956B	200.0	190.0	210.0	1.9	1200.0	8000	0.25	1	152.0	7

Note:
1.Short duration pulse test used to minimize self-heating effect.
2.The max zener current is not absolute , Please confirm that the product of the voltage and current should not exceed the rated Power dissipation in actual zener application.

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