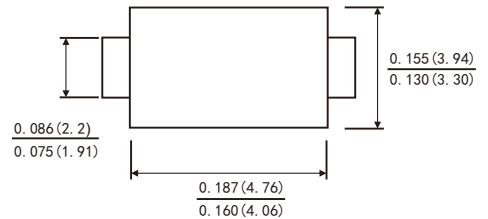


### FEATURES

- Low leakage, low zener impedance at low current
- Maximum power dissipation of 5W is ideally suited for stabilized power supply, etc.
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

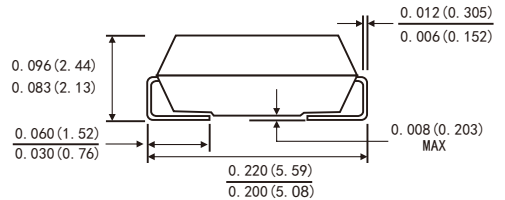


### SMB(DO-214AA)



### MECHANICAL DATA

- Case: SMB package are upon request.
- Terminals: Solder plated
- Polarity: Color band denotes cathode end



Dimensions in inches and (millimeters)

### ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES) (TA=25°C)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation	PD	5	W
Junction temperature	TJ	150	°C
Storage temperature range	TSTG	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS (TA=25°C)

	Symbols	Min	Typ	Max	Units
Thermal resistance junction to ambient	RθJA			90	°C/W
Thermal resistance junction to leads	RθJL			25	°C/W

# SMB5333B... PLASTIC PACKAGE ZENER DIODES

## ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

TYPE	Regulator Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Zener Current	Maximum Surge Current	Maximum Voltage
	$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$		$I_{ZM}$	$I_{ZSM}$	Regulator
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu A$ )	(V)	(mA)	(A)	$\Delta V_Z$
SMB5333B	3.3	380	3.0	400	1.0	300	1.0	1440	20.0	0.85
SMB5334B	3.6	350	2.5	500	1.0	150	1.0	1320	18.7	0.80
SMB5335B	3.9	320	2.0	500	1.0	50	1.0	1220	17.6	0.54
SMB5336B	4.3	290	2.0	500	1.0	10	1.0	1100	16.4	0.49
SMB5337B	4.7	260	2.0	450	1.0	5.0	1.0	1010	15.3	0.44
SMB5338B	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4	0.39
SMB5339B	5.6	220	1.0	400	1.0	1.0	2.0	856	13.4	0.25
SMB5340B	6.0	200	1.0	300	1.0	1.0	3.0	790	12.7	0.19
SMB5341B	6.2	200	1.0	200	1.0	1.0	3.0	765	12.4	0.10
SMB5342B	6.8	175	1.0	200	1.0	10	5.2	700	11.5	0.15
SMB5343B	7.5	175	1.5	200	1.0	10	5.7	630	10.7	0.15
SMB5344B	8.2	150	1.5	200	1.0	10	6.2	580	10.0	0.20
SMB5345B	8.7	150	2.0	200	1.0	10	6.6	545	9.5	0.20
SMB5346B	9.1	150	2.0	150	1.0	7.5	6.9	520	9.2	0.22
SMB5347B	10	125	2.0	125	1.0	5.0	7.6	475	8.6	0.22
SMB5348B	11	125	2.5	125	1.0	5.0	8.4	430	8.0	0.25
SMB5349B	12	100	2.5	125	1.0	2.0	9.1	395	7.5	0.25
SMB5350B	13	100	2.5	100	1.0	1.0	9.9	365	7.0	0.25
SMB5351B	14	100	2.5	75	1.0	1.0	10.6	340	6.7	0.25
SMB5352B	15	75	2.5	75	1.0	1.0	11.5	315	6.3	0.25
SMB5353B	16	75	2.5	75	1.0	1.0	12.2	295	6.0	0.30
SMB5354B	17	70	2.5	75	1.0	0.8	12.9	280	5.8	0.35
SMB5355B	18	65	2.5	75	1.0	0.8	13.7	265	5.5	0.40
SMB5356B	19	65	3.0	75	1.0	0.8	14.4	250	5.3	0.40
SMB5357B	20	65	3.0	75	1.0	0.8	15.2	237	5.1	0.40
SMB5358B	22	50	3.5	75	1.0	0.8	16.7	216	4.7	0.45
SMB5359B	24	50	3.5	100	1.0	0.8	18.2	198	4.4	0.55
SMB5360B	25	50	4.0	110	1.0	0.8	19.0	190	4.3	0.55
SMB5361B	27	50	5.0	120	1.0	0.8	20.6	176	4.1	0.60
SMB5362B	28	50	6.0	130	1.0	0.8	21.2	170	3.9	0.60
SMB5363B	30	40	8.0	140	1.0	0.8	22.8	158	3.7	0.60
SMB5364B	33	40	10	150	1.0	0.8	25.1	144	3.5	0.60
SMB5365B	36	30	11	160	1.0	0.8	27.4	132	3.3	0.65
SMB5366B	39	30	14	170	1.0	0.8	29.7	122	3.1	0.65
SMB5367B	43	30	20	190	1.0	0.8	32.7	110	2.8	0.70
SMB5368B	47	25	25	210	1.0	0.8	35.8	100	2.7	0.80
SMB5369B	51	25	27	230	1.0	0.8	38.8	93.0	2.5	0.90
SMB5370B	56	20	35	280	1.0	0.8	42.6	86.0	2.3	1.00
SMB5371B	60	20	40	350	1.0	0.8	45.5	79.0	2.2	1.20
SMB5372B	62	20	42	400	1.0	0.8	47.1	76.0	2.1	1.35
SMB5373B	68	20	44	500	1.0	0.8	51.7	70.0	2.0	1.50
SMB5374B	75	20	45	620	1.0	0.8	56.0	63.0	1.9	1.60
SMB5375B	82	15	65	720	1.0	0.8	62.2	58.0	1.8	1.80
SMB5376B	87	15	75	760	1.0	0.8	66.0	54.5	1.7	2.00
SMB5377B	91	15	75	760	1.0	0.8	69.2	52.5	1.6	2.20
SMB5378B	100	12	90	800	1.0	0.8	76.0	47.5	1.5	2.30

# SMB5333B... PLASTIC PACKAGE ZENER DIODES

TYPE	Regulator Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Zener Current	Maximum Surge Current	Maximum Voltage
	$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$		$I_{ZM}$	$I_{ZSM}$	Regulator
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)	(A)	$\Delta V_Z$
<b>SMB5379B</b>	110	12	125	1000	1.0	0.8	83.6	43.0	1.4	2.50
<b>SMB5380B</b>	120	10	170	1150	1.0	0.8	91.2	39.5	1.3	2.50
<b>SMB5381B</b>	130	10	190	1250	1.0	0.8	98.8	36.6	1.2	2.50
<b>SMB5382B</b>	140	8.0	230	1500	1.0	0.8	106	34.0	1.2	2.50
<b>SMB5383B</b>	150	8.0	330	1500	1.0	0.8	114	31.6	1.1	3.00
<b>SMB5384B</b>	160	8.0	350	1650	1.0	0.8	122	29.4	1.1	3.00
<b>SMB5385B</b>	170	8.0	380	1750	1.0	0.8	129	28.0	1.0	3.00
<b>SMB5386B</b>	180	5.0	430	1750	1.0	0.8	137	26.4	1.0	4.00
<b>SMB5387B</b>	190	5.0	450	1850	1.0	0.8	144	25.0	0.9	5.00
<b>SMB5388B</b>	200	5.0	480	1850	1.0	0.8	152	23.6	0.9	5.00

**Notes :** (1) Suffix " B " indicates  $\pm 5\%$  tolerance, suffix " A " indicates  $\pm 10\%$  tolerance.

(2) The surge current ( $I_{ZSM}$ ) is specified as the maximum peak of a non- recurrent half-sin wave of 8.3 ms duration.

(3) Voltage regulation ( $V_Z$ ) is the difference between the voltage measured at 10% and 50% of I

## Typical Characteristics

Fig. 1 - Power Derating Curve

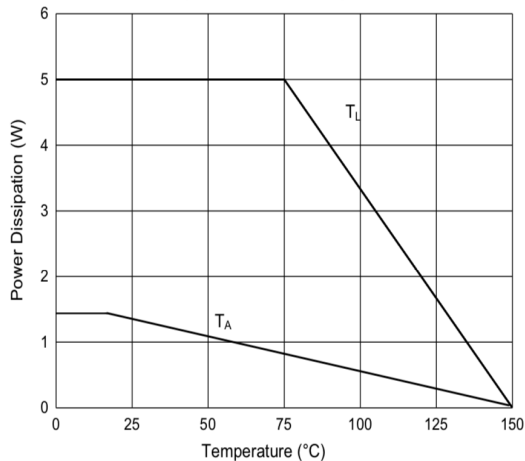


Fig. 2 - Typical Zener Breakdown Characteristics

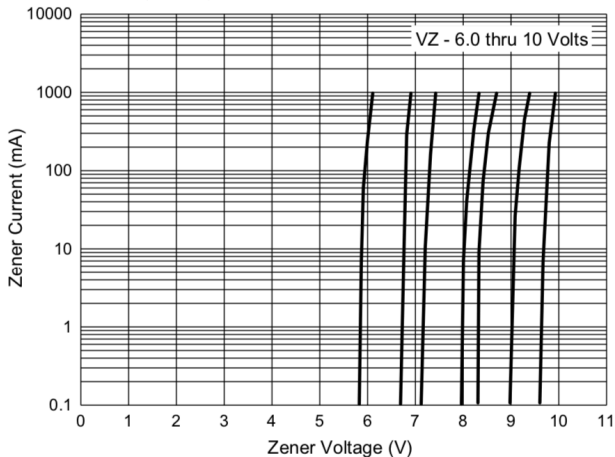


Fig. 3 - Typical Zener Breakdown Characteristics

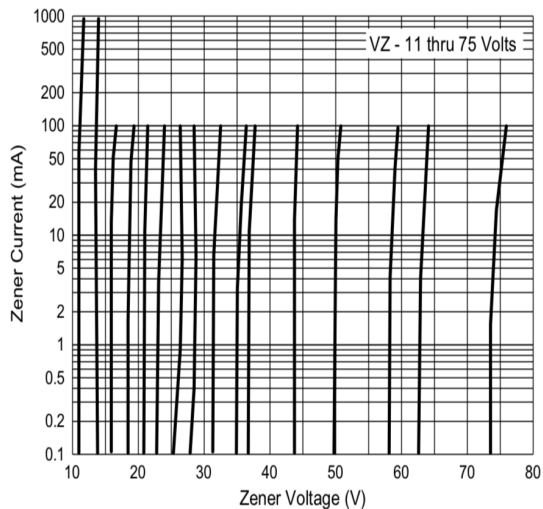
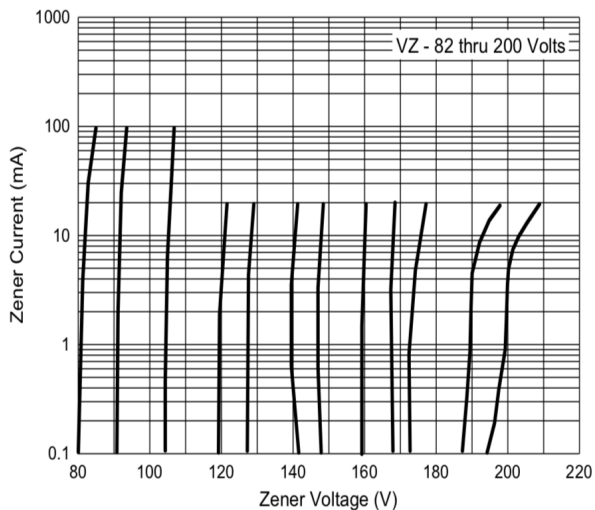


Fig. 4 - Typical Zener Breakdown Characteristics



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