

SMBJ5338B~SMBJ5388B

ZENER DIODES

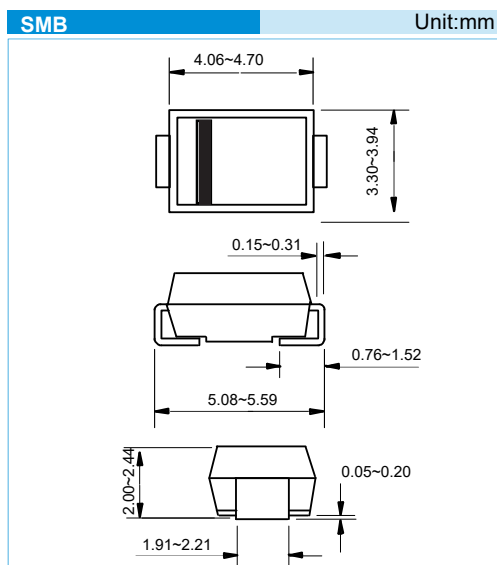
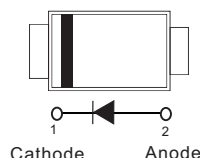
VOLTAGE	5.1 to 200 Volt	POWER	5.0 Watt
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FEATURES

- Flat Handling Surface for Accurate Placement
- Glass Passivated Junction
- Low Profile Package
- Low Zener Impedance
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 1.0A$	V_F	1.2	V
Power Dissipation	P_d	5.0	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	25	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

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ELECTRICAL CHARACTERISTICS @25°C

TYPE	Regulator Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Zener Current	Maximum Surge Current	Maximum Voltage Regulator	Marking
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}	I_{ZSM}	ΔV_Z	
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(A)		
SMBJ5338B	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4	0.39	338B
SMBJ5339B	5.6	220	1.0	400	1.0	1.0	2.0	856	13.4	0.25	339B
SMBJ5340B	6.0	200	1.0	300	1.0	1.0	3.0	790	12.7	0.19	340B
SMBJ5341B	6.2	200	1.0	200	1.0	1.0	3.0	765	12.4	0.10	341B
SMBJ5342B	6.8	175	1.0	200	1.0	10	5.2	700	11.5	0.15	342B
SMBJ5343B	7.5	175	1.5	200	1.0	10	5.7	630	10.7	0.15	343B
SMBJ5344B	8.2	150	1.5	200	1.0	10	6.2	580	10.0	0.20	344B
SMBJ5345B	8.7	150	2.0	200	1.0	10	6.6	545	9.5	0.20	345B
SMBJ5346B	9.1	150	2.0	150	1.0	7.5	6.9	520	9.2	0.22	346B
SMBJ5347B	10	125	2.0	125	1.0	5.0	7.6	475	8.6	0.22	347B
SMBJ5348B	11	125	2.5	125	1.0	5.0	8.4	430	8.0	0.25	348B
SMBJ5349B	12	100	2.5	125	1.0	2.0	9.1	395	7.5	0.25	349B
SMBJ5350B	13	100	2.5	100	1.0	1.0	9.9	365	7.0	0.25	350B
SMBJ5351B	14	100	2.5	75	1.0	1.0	10.6	340	6.7	0.25	351B
SMBJ5352B	15	75	2.5	75	1.0	1.0	11.5	315	6.3	0.25	352B
SMBJ5353B	16	75	2.5	75	1.0	1.0	12.2	295	6.0	0.30	353B
SMBJ5354B	17	70	2.5	75	1.0	0.5	12.9	280	5.8	0.35	354B
SMBJ5355B	18	65	2.5	75	1.0	0.5	13.7	265	5.5	0.40	355B
SMBJ5356B	19	65	3.0	75	1.0	0.5	14.4	250	5.3	0.40	356B
SMBJ5357B	20	65	3.0	75	1.0	0.5	15.2	237	5.1	0.40	357B
SMBJ5358B	22	50	3.5	75	1.0	0.5	16.7	216	4.7	0.45	358B
SMBJ5359B	24	50	3.5	100	1.0	0.5	18.2	198	4.4	0.55	359B
SMBJ5360B	25	50	4.0	110	1.0	0.5	19.0	190	4.3	0.55	360B
SMBJ5361B	27	50	5.0	120	1.0	0.5	20.6	176	4.1	0.60	361B
SMBJ5362B	28	50	6.0	130	1.0	0.5	21.2	170	3.9	0.60	362B
SMBJ5363B	30	40	8.0	140	1.0	0.5	22.8	158	3.7	0.60	363B
SMBJ5364B	33	40	10	150	1.0	0.5	25.1	144	3.5	0.60	364B
SMBJ5365B	36	30	11	160	1.0	0.5	27.4	132	3.3	0.65	365B
SMBJ5366B	39	30	14	170	1.0	0.5	29.7	122	3.1	0.65	366B
SMBJ5367B	43	30	20	190	1.0	0.5	32.7	110	2.8	0.70	367B
SMBJ5368B	47	25	25	210	1.0	0.5	35.8	100	2.7	0.80	368B
SMBJ5369B	51	25	27	230	1.0	0.5	38.8	93.0	2.5	0.90	369B
SMBJ5370B	56	20	35	280	1.0	0.5	42.6	86.0	2.3	1.00	370B
SMBJ5371B	60	20	40	350	1.0	0.5	45.5	79.0	2.2	1.20	371B
SMBJ5372B	62	20	42	400	1.0	0.5	47.1	76.0	2.1	1.35	372B
SMBJ5373B	68	20	44	500	1.0	0.5	51.7	70.0	2.0	1.50	373B
SMBJ5374B	75	20	45	620	1.0	0.5	56.0	63.0	1.9	1.60	374B
SMBJ5375B	82	15	65	720	1.0	0.5	62.2	58.0	1.8	1.80	375B
SMBJ5376B	87	15	75	760	1.0	0.5	66.0	54.5	1.7	2.00	376B
SMBJ5377B	91	15	75	760	1.0	0.5	69.2	52.5	1.6	2.20	377B
SMBJ5378B	100	12	90	800	1.0	0.5	76.0	47.5	1.5	2.30	378B
SMBJ5379B	110	12	125	1000	1.0	0.5	83.6	43.0	1.4	2.50	379B
SMBJ5380B	120	10	170	1150	1.0	0.5	91.2	39.5	1.3	2.50	380B
SMBJ5381B	130	10	190	1250	1.0	0.5	98.8	36.6	1.2	2.50	381B
SMBJ5382B	140	8.0	230	1500	1.0	0.5	106	34.0	1.2	2.50	382B
SMBJ5383B	150	8.0	330	1500	1.0	0.5	114	31.6	1.1	3.00	383B
SMBJ5384B	160	8.0	350	1650	1.0	0.5	122	29.4	1.1	3.00	384B
SMBJ5385B	170	8.0	380	1750	1.0	0.5	129	28.0	1.0	3.00	385B
SMBJ5386B	180	5.0	430	1750	1.0	0.5	137	26.4	1.0	4.00	386B
SMBJ5387B	190	5.0	450	1850	1.0	0.5	144	25.0	0.9	5.00	387B
SMBJ5388B	200	5.0	480	1850	1.0	0.5	152	23.6	0.9	5.00	388B

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_{ZM}

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RATING AND CHARACTERISTIC CURVES

Fig. 1 POWER DERATING CURVE

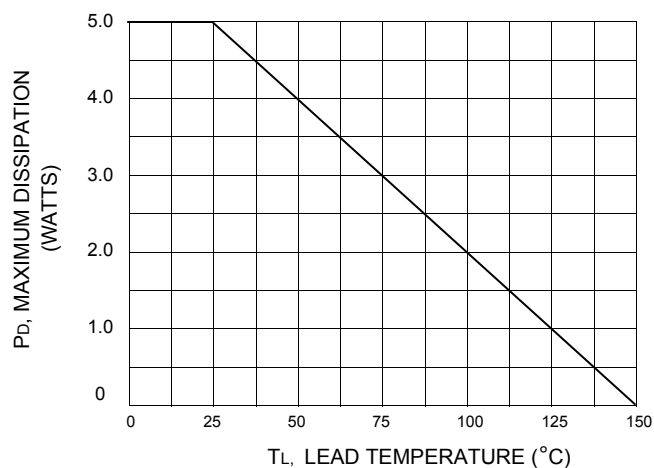
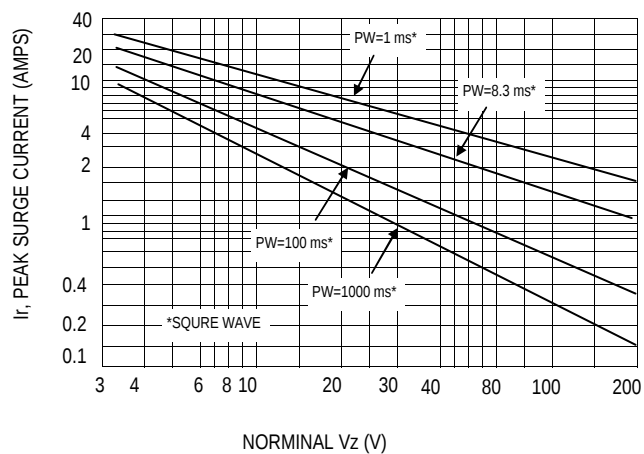


Fig.2 Maximum Non-Repetitive Surg Current versus Nominal Zener Voltage

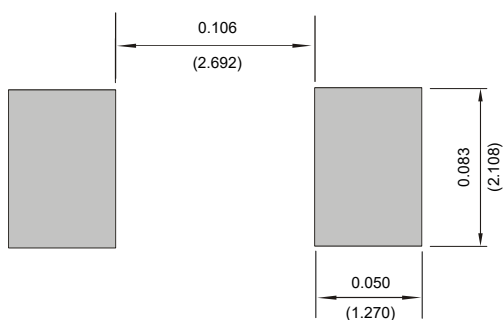


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MOUNTING PAD LAYOUT

SMB / DO-214AA

Unit:Inch(mm)



ORDER INFORMATION

• Packing information

Part Number	Case	Reel Size	QUANTITY
SMBJ5338B~SMBJ5388B	SMB	13 Inch	3000