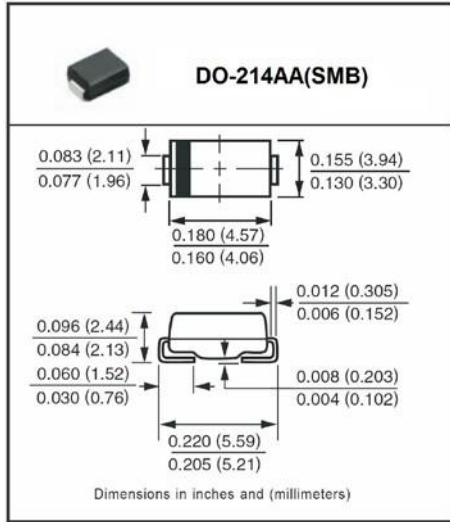


表面安装稳压二极管  
 稳压电压 **5.1-200 V**  
 功率 **5.0 W**

**Surface Mount Zener Rectifiers**  
**Reverse Voltage 5.1 to 200 V**  
**Power 5.0W**



### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94 V-0
- For surface mounted applications
- Low Zener impedance
- Low regulation factor
- High temperature soldering guaranteed: 260 °C/10 seconds at terminal
- Lead and body according with RoHS standard
- Standard voltage tolerance is 10 %, Suffix A ± 5 %

### Mechanical Data

- Case: Molded plastic body
- Terminals: Solder plated
- Polarity: Color band denotes cathode end
- Mounting Position: Any

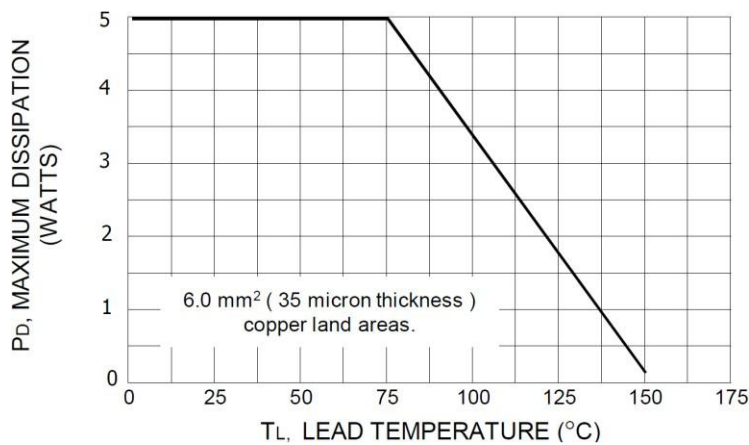
Maximum Ratings  $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 50\text{ }^{\circ}\text{C}$ (Note1)	$P_D$	5.0	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.5	Volts
Junction Temperature Range	$T_J$	- 55 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 150	$^{\circ}\text{C}$

**Note :**

(1)  $T_L$  = Lead temperature at 5.0 mm<sup>2</sup> ( 0.013 mm thick ) copper land areas.

**Fig. 1 POWER TEMPERATURE DERATING CURVE**





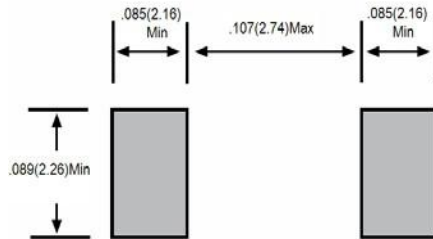
# SMBJ5338-SMBJ5388

## 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
	$V_Z @ I_{ZT}$ (V)	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ ( $\Omega$ )	$Z_{ZK} @ I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R @ V_R$ ( $\mu$ A) (V)		$I_{ZM}$ (mA)	$I_{ZSM}$ (A)	Regulator $\Delta V_Z$
SMBJ5338	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4	0.39
SMBJ5339	5.6	220	1.0	400	1.0	1.0	2.0	865	13.4	0.25
SMBJ5340	6.0	200	1.0	300	1.0	1.0	3.0	790	12.7	0.19
SMBJ5341	6.2	200	1.0	200	1.0	1.0	3.0	765	12.4	0.10
SMBJ5342	6.8	175	1.0	200	1.0	10	4.9	700	11.5	0.15
SMBJ5343	7.5	175	1.5	200	1.0	10	5.4	630	10.7	0.15
SMBJ5344	8.2	150	1.5	200	1.0	10	5.9	580	10.0	0.20
SMBJ5345	8.7	150	2.0	200	1.0	10	6.25	545	9.5	0.20
SMBJ5346	9.1	150	2.0	150	1.0	7.5	6.6	520	9.2	0.22
SMBJ5347	10	125	2.0	125	1.0	5.0	7.2	475	8.6	0.22
SMBJ5348	11	125	2.5	125	1.0	5.0	8.0	430	8.0	0.25
SMBJ5349	12	100	2.5	125	1.0	2.0	8.6	395	7.5	0.25
SMBJ5350	13	100	2.5	100	1.0	1.0	9.4	365	7.0	0.25
SMBJ5351	14	100	2.5	75	1.0	1.0	10.1	340	6.7	0.25
SMBJ5352	15	75	2.5	75	1.0	1.0	10.8	315	6.3	0.25
SMBJ5353	16	75	2.5	75	1.0	1.0	11.5	295	6.0	0.30
SMBJ5354	17	70	2.5	75	1.0	0.5	12.2	280	5.8	0.35
SMBJ5355	18	65	2.5	75	1.0	0.5	13.0	265	5.5	0.40
SMBJ5356	19	65	3.0	75	1.0	0.5	13.7	250	5.3	0.40
SMBJ5357	20	65	3.0	75	1.0	0.5	14.4	237	5.1	0.40
SMBJ5358	22	50	3.5	75	1.0	0.5	15.8	216	4.7	0.45
SMBJ5359	24	50	3.5	100	1.0	0.5	17.3	198	4.4	0.55
SMBJ5360	25	50	4.0	110	1.0	0.5	18.0	190	4.3	0.55
SMBJ5361	27	50	5.0	120	1.0	0.5	19.4	176	4.1	0.60
SMBJ5362	28	50	6.0	130	1.0	0.5	20.1	170	3.9	0.60
SMBJ5363	30	40	8.0	140	1.0	0.5	21.6	158	3.7	0.60
SMBJ5364	33	40	10	150	1.0	0.5	23.8	144	3.5	0.60
SMBJ5365	36	30	11	160	1.0	0.5	25.9	132	3.3	0.65
SMBJ5366	39	30	14	170	1.0	0.5	28.1	122	3.1	0.65
SMBJ5367	43	30	20	190	1.0	0.5	31.0	110	2.8	0.70
SMBJ5368	47	25	25	210	1.0	0.5	33.8	100	2.7	0.80
SMBJ5369	51	25	27	230	1.0	0.5	36.7	93.0	2.5	0.90
SMBJ5370	56	20	35	280	1.0	0.5	40.3	86.0	2.3	1.00
SMBJ5371	60	20	40	350	1.0	0.5	43.0	79.0	2.2	1.20
SMBJ5372	62	20	42	400	1.0	0.5	44.6	76.0	2.1	1.35
SMBJ5373	68	20	44	500	1.0	0.5	49.0	70.0	2.0	1.50
SMBJ5374	75	20	45	620	1.0	0.5	54.0	63.0	1.9	1.60
SMBJ5375	82	15	65	720	1.0	0.5	59.0	58.0	1.8	1.80
SMBJ5376	87	15	75	760	1.0	0.5	63.0	54.5	1.7	2.00
SMBJ5377	91	15	75	760	1.0	0.5	65.5	52.5	1.6	2.20
SMBJ5378	100	12	90	800	1.0	0.5	72.0	47.5	1.5	2.30
SMBJ5379	110	12	125	1000	1.0	0.5	79.2	43.0	1.4	2.50
SMBJ5380	120	10	170	1150	1.0	0.5	86.4	39.5	1.3	2.50
SMBJ5381	130	10	190	1250	1.0	0.5	93.2	36.6	1.2	2.50
SMBJ5382	140	8.0	230	1500	1.0	0.5	101	34.0	1.2	2.50
SMBJ5383	150	8.0	330	1500	1.0	0.5	108	31.6	1.1	3.00
SMBJ5384	160	8.0	350	1650	1.0	0.5	115	29.4	1.1	3.00
SMBJ5385	170	8.0	380	1750	1.0	0.5	122	28.0	1.0	3.00
SMBJ5386	180	5.0	430	1750	1.0	0.5	130	26.4	1.0	4.00
SMBJ5387	190	5.0	450	1850	1.0	0.5	137	25.0	0.9	5.00
SMBJ5388	200	5.0	480	1850	1.0	0.5	144	23.6	0.9	5.00

- Notes: (1) Suffix "A" indicates  $\pm 10\%$  tolerance, suffix "B" indicates  $\pm 5\%$  tolerance
- The surge current ( $I_{ZSM}$ ) is specified as the maximum peak of a non-recurrent half-sin wave of 8.3 ms duration.
  - Voltage regulation ( $V_Z$ ) is the difference between the voltage measured at 10% and 50% of  $I_{ZM}$

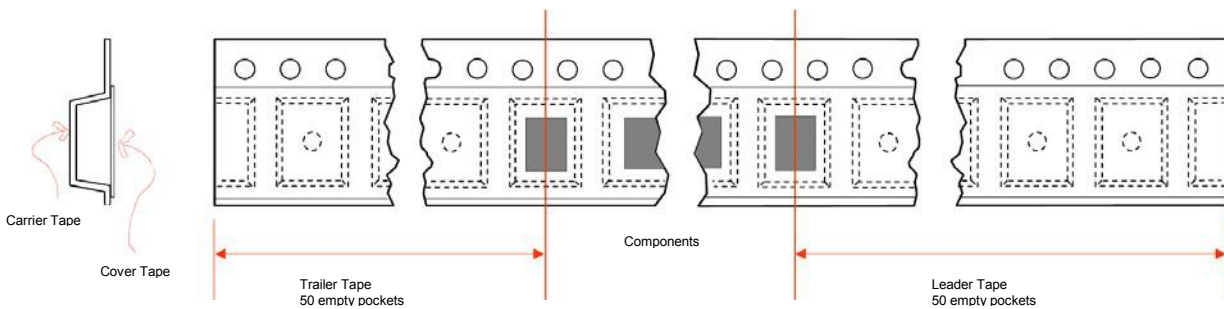
## Mounting Pad Layout



## Packing

Part number	Component Package	Quantity	Packaging Option
SMBJ5338-SMBJ5388	DO-214AA SMB	3000	Tape & Reel – 12mm/13" tape

## DO-214AA(SMB) Tape Leader and Trailer Configuration



## Tape and Reel Specification

