

VOLTAGE RANGE: 3.3 - 200V

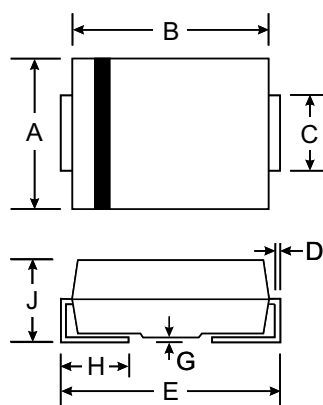
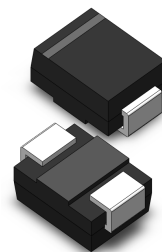
POWER: 5.0Watts

Features

- Complete Voltage Range 3.3 to 200 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

Mechanical Data

- Case : SMB (DO-214AA) Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Lead formed for Surface mount
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Rating	Symbol	Value	Unit
Power Dissipation at $T_L = 25^\circ\text{C}$	P_D	5	W
Maximum Forward Voltage at $I_F = 1.0\text{ A}$	V_F	1.2	V
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	90	$^\circ\text{C/W}$
Thermal Resistance, Junction to Lead (Note 1)	$R_{\theta JL}$	25	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150	$^\circ\text{C}$

Note :

- (1) When mounted on FR4 PC board (1 oz Cu) with recommended footprint.

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)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)	(A)	ΔV_Z
SM5Z3V3	3.3	380	3.0	400	1.0	300	1.0	1440	20.0	0.85
SM5Z3V6	3.6	350	2.5	500	1.0	150	1.0	1320	18.7	0.80
SM5Z3V9	3.9	320	2.0	500	1.0	50	1.0	1220	17.6	0.54
SM5Z4V3	4.3	290	2.0	500	1.0	10	1.0	1100	16.4	0.49
SM5Z4V7	4.7	260	2.0	450	1.0	5.0	1.0	1010	15.3	0.44
SM5Z5V1	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4	0.39
SM5Z5V6	5.6	220	1.0	400	1.0	1.0	2.0	856	13.4	0.25
SM5Z6V0	6.0	200	1.0	300	1.0	1.0	3.0	790	12.7	0.19
SM5Z6V2	6.2	200	1.0	200	1.0	1.0	3.0	765	12.4	0.10
SM5Z6V8	6.8	175	1.0	200	1.0	10	5.2	700	11.5	0.15
SM5Z7V5	7.5	175	1.5	200	1.0	10	5.7	630	10.7	0.15
SM5Z8V2	8.2	150	1.5	200	1.0	10	6.2	580	10.0	0.20
SM5Z8V7	8.7	150	2.0	200	1.0	10	6.6	545	9.5	0.20
SM5Z9V1	9.1	150	2.0	150	1.0	7.5	6.9	520	9.2	0.22
SM5Z10	10	125	2.0	125	1.0	5.0	7.6	475	8.6	0.22
SM5Z11	11	125	2.5	125	1.0	5.0	8.4	430	8.0	0.25
SM5Z12	12	100	2.5	125	1.0	2.0	9.1	395	7.5	0.25
SM5Z13	13	100	2.5	100	1.0	1.0	9.9	365	7.0	0.25
SM5Z14	14	100	2.5	75	1.0	1.0	10.6	340	6.7	0.25
SM5Z15	15	75	2.5	75	1.0	1.0	11.5	315	6.3	0.25
SM5Z16	16	75	2.5	75	1.0	1.0	12.2	295	6.0	0.30
SM5Z17	17	70	2.5	75	1.0	0.5	12.9	280	5.8	0.35
SM5Z18	18	65	2.5	75	1.0	0.5	13.7	265	5.5	0.40
SM5Z19	19	65	3.0	75	1.0	0.5	14.4	250	5.3	0.40
SM5Z20	20	65	3.0	75	1.0	0.5	15.2	237	5.1	0.40
SM5Z22	22	50	3.5	75	1.0	0.5	16.7	216	4.7	0.45
SM5Z24	24	50	3.5	100	1.0	0.5	18.2	198	4.4	0.55
SM5Z25	25	50	4.0	110	1.0	0.5	19.0	190	4.3	0.55
SM5Z27	27	50	5.0	120	1.0	0.5	20.6	176	4.1	0.60
SM5Z28	28	50	6.0	130	1.0	0.5	21.2	170	3.9	0.60
SM5Z30	30	40	8.0	140	1.0	0.5	22.8	158	3.7	0.60
SM5Z33	33	40	10	150	1.0	0.5	25.1	144	3.5	0.60
SM5Z36	36	30	11	160	1.0	0.5	27.4	132	3.3	0.65
SM5Z39	39	30	14	170	1.0	0.5	29.7	122	3.1	0.65
SM5Z43	43	30	20	190	1.0	0.5	32.7	110	2.8	0.70
SM5Z47	47	25	25	210	1.0	0.5	35.8	100	2.7	0.80
SM5Z51	51	25	27	230	1.0	0.5	38.8	93.0	2.5	0.90
SM5Z56	56	20	35	280	1.0	0.5	42.6	86.0	2.3	1.00
SM5Z60	60	20	40	350	1.0	0.5	45.5	79.0	2.2	1.20
SM5Z62	62	20	42	400	1.0	0.5	47.1	76.0	2.1	1.35
SM5Z68	68	20	44	500	1.0	0.5	51.7	70.0	2.0	1.50
SM5Z75	75	20	45	620	1.0	0.5	56.0	63.0	1.9	1.60
SM5Z82	82	15	65	720	1.0	0.5	62.2	58.0	1.8	1.80
SM5Z87	87	15	75	760	1.0	0.5	66.0	54.5	1.7	2.00
SM5Z91	91	15	75	760	1.0	0.5	69.2	52.5	1.6	2.20
SM5Z100	100	12	90	800	1.0	0.5	76.0	47.5	1.5	2.30
SM5Z110	110	12	125	1000	1.0	0.5	83.6	43.0	1.4	2.50
SM5Z120	120	10	170	1150	1.0	0.5	91.2	39.5	1.3	2.50
SM5Z130	130	10	190	1250	1.0	0.5	98.8	36.6	1.2	2.50
SM5Z140	140	8.0	230	1500	1.0	0.5	106	34.0	1.2	2.50
SM5Z150	150	8.0	330	1500	1.0	0.5	114	31.6	1.1	3.00
SM5Z160	160	8.0	350	1650	1.0	0.5	122	29.4	1.1	3.00
SM5Z170	170	8.0	380	1750	1.0	0.5	129	28.0	1.0	3.00
SM5Z180	180	5.0	430	1750	1.0	0.5	137	26.4	1.0	4.00
SM5Z190	190	5.0	450	1850	1.0	0.5	144	25.0	0.9	5.00
SM5Z200	200	5.0	480	1850	1.0	0.5	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