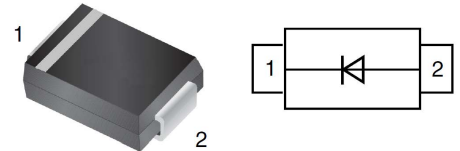


## Surface Mount Silicon Zener Diodes in DO-214AA/SMB

### Key Features

- High precision Zener voltage
- Low dynamic impedance
- Excellent temperature stability
- Low reverse leakage current
- Available in various Zener voltages
- Available in various power ratings



### Mechanical Data

- Case:** DO-214AA
- Molding Compound Flammability Rating:** UL94V-0
- Terminals:** Lead length: 0.5mm (0.020")

### Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	UNIT
DC power dissipation at $T_L = 50^\circ\text{C}^{(1)}$	$P_D$	1.5	W
Maximum forward voltage at $I_F = 200\text{ mA}$	$V_F$	1.5	V
Junction temperature range	$T_J$	- 55 to + 150	°C
Storage temperature range	$T_{STG}$	- 55 to + 150	°C

#### Note:

(1)  $T_L$  = Lead temperature at 3/8 " (9.5mm) from body

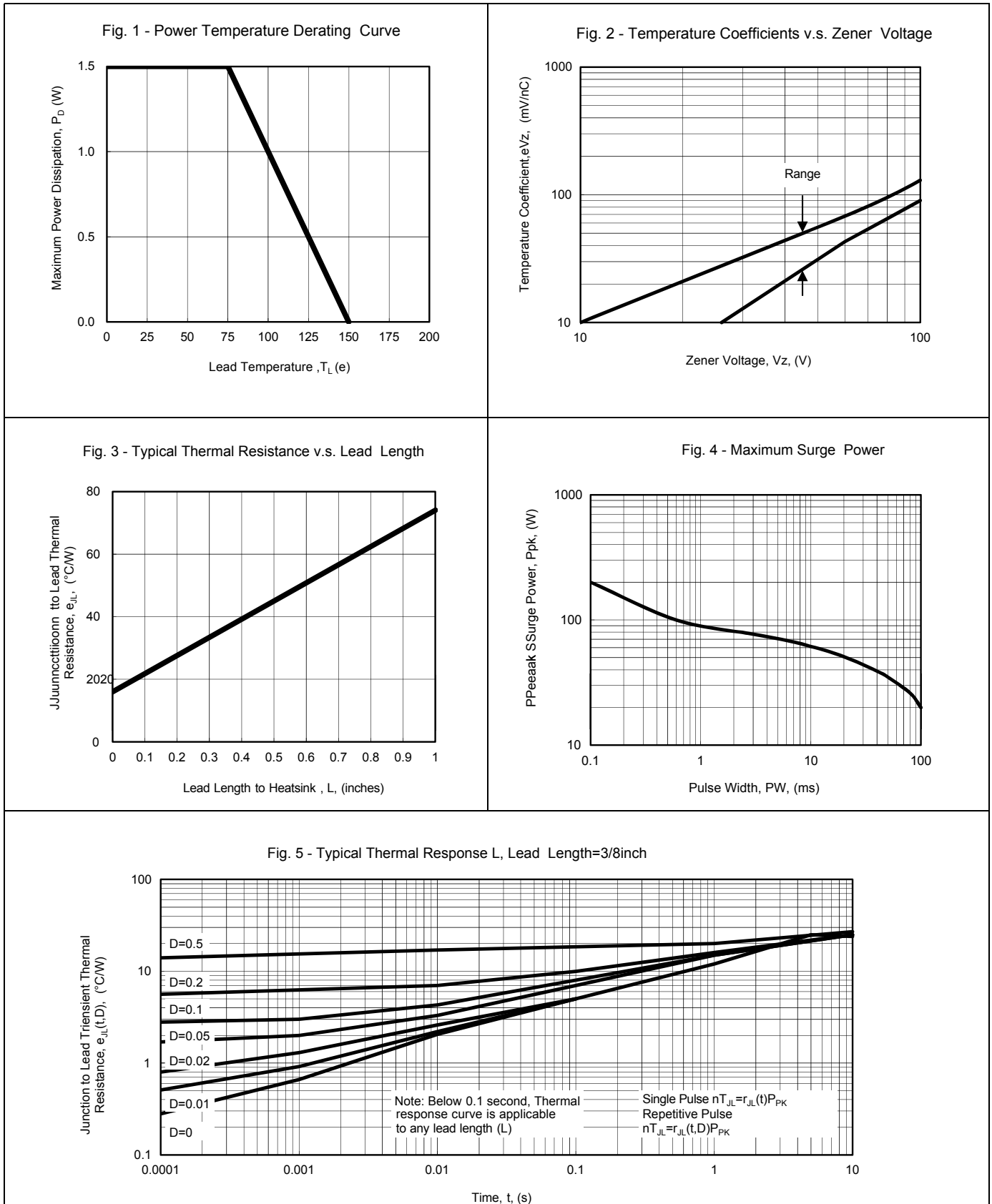
## Typical Characteristics (T<sub>amb</sub> = 25 °C unless otherwise specified)

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V <sub>Z</sub> @ I <sub>ZT</sub>	I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub> @ V <sub>R</sub>		I <sub>ZM</sub>
	(V)	(mA)	(Ω)	(Ω)	(mA)	(BA)	(V)	(mA)
1SMB5913A	3.3	113.6	10.0	500	1.00	100.0	1.0	454
1SMB5914A	3.6	104.2	9.0	500	1.00	75.0	1.0	416
1SMB5915A	3.9	96.1	7.5	500	1.00	25.0	1.0	384
1SMB5916A	4.3	87.2	6.0	500	1.00	5.0	1.0	348
1SMB5917A	4.7	79.8	5.0	500	1.00	5.0	1.5	319
1SMB5918A	5.1	73.5	4.0	350	1.00	5.0	2.0	294
1SMB5919A	5.6	66.9	2.0	250	1.00	5.0	3.0	267
1SMB5920A	6.2	60.5	2.0	200	1.00	2.5	4.0	240
1SMB5921A	6.8	55.1	2.5	200	1.00	2.5	5.2	220
1SMB5922A	7.5	50.0	3.0	400	0.50	2.5	6.0	200
1SMB5923A	8.2	45.7	3.5	400	0.50	2.5	6.5	182
1SMB5924A	9.1	41.2	4.0	500	0.50	2.5	7.0	164
1SMB5925A	10.0	37.5	4.5	500	0.25	2.5	8.0	150
1SMB5926A	11.0	34.1	5.5	550	0.25	0.5	8.4	136
1SMB5927A	12.0	31.2	6.5	550	0.25	0.5	9.1	125
1SMB5928A	13.0	28.8	7.0	550	0.25	0.5	9.9	115
1SMB5929A	15.0	25.0	9.0	600	0.25	0.5	11.4	100
1SMB5930A	16.0	23.4	10.0	600	0.25	0.5	12.2	93
1SMB5931A	18.0	20.8	12.0	650	0.25	0.5	13.7	83
1SMB5932A	20.0	18.7	14.0	650	0.25	0.5	15.2	75
1SMB5933A	22.0	17.0	17.5	650	0.25	0.5	16.7	68
1SMB5934A	24.0	15.6	19.0	700	0.25	0.5	18.2	62
1SMB5935A	27.0	13.9	23.0	700	0.25	0.5	20.6	55
1SMB5936A	30.0	12.5	26.0	750	0.25	0.5	22.8	50
1SMB5937A	33.0	11.4	33.0	800	0.25	0.5	25.1	45
1SMB5938A	36.0	10.4	38.0	850	0.25	0.5	27.4	41
1SMB5939A	39.0	9.6	45.0	900	0.25	0.5	29.7	38
1SMB5940A	43.0	8.7	53.0	950	0.25	0.5	32.7	34
1SMB5941A	47.0	8.0	67.0	1000	0.25	0.5	35.8	31
1SMB5942A	51.0	7.3	70.0	1100	0.25	0.5	38.8	29
1SMB5943A	56.0	6.7	86.0	1300	0.25	0.5	42.6	26
1SMB5944A	62.0	6.0	100.0	1500	0.25	0.5	47.1	24
1SMB5945A	68.0	5.5	120.0	1700	0.25	0.5	51.7	22
1SMB5946A	75.0	5.0	140.0	2000	0.25	0.5	56.0	20
1SMB5947A	82.0	4.6	160.0	2500	0.25	0.5	62.2	18
1SMB5948A	91.0	4.1	200.0	3000	0.25	0.5	69.2	16
1SMB5949A	100.0	3.7	250.0	3100	0.25	0.5	76.0	15
1SMB5950A	110.0	3.4	300.0	4000	0.25	0.5	83.6	13
1SMB5951A	120.0	3.1	380.0	4500	0.25	0.5	91.2	12
1SMB5952A	130.0	2.9	450.0	5000	0.25	0.5	98.8	11
1SMB5953A	150.0	2.5	600.0	6000	0.25	0.5	114.0	10
1SMB5954A	160.0	2.3	700.0	6500	0.25	0.5	121.6	9
1SMB5955A	180.0	2.1	900.0	7000	0.25	0.5	136.8	8
1SMB5956A	200.0	1.9	1200.0	8000	0.25	0.5	152.0	7

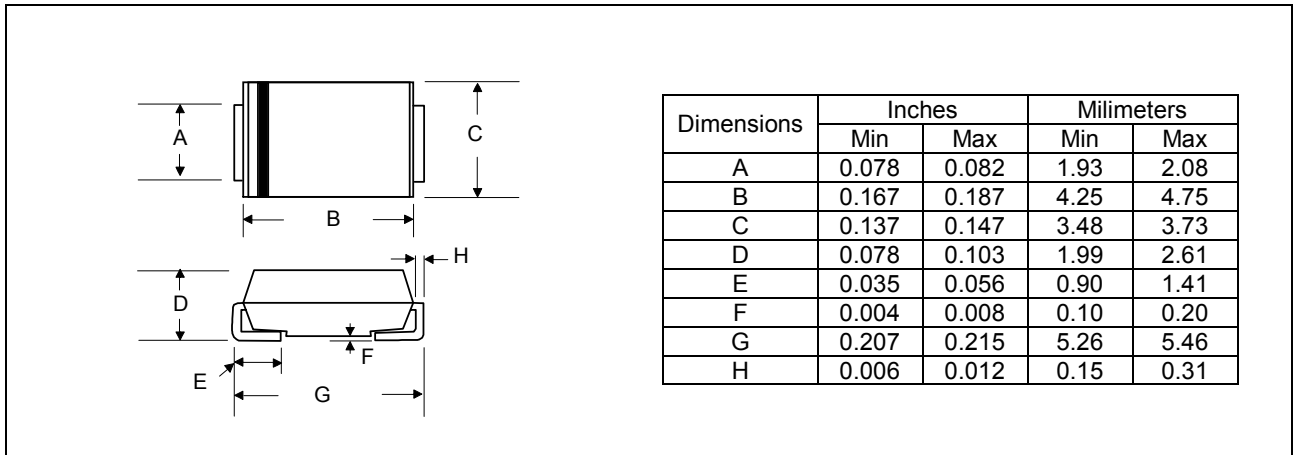
### Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I<sub>ZT</sub> per method.

**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



## Package Dimensions



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
1SMB59xxA	DO-214AA/SMB	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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