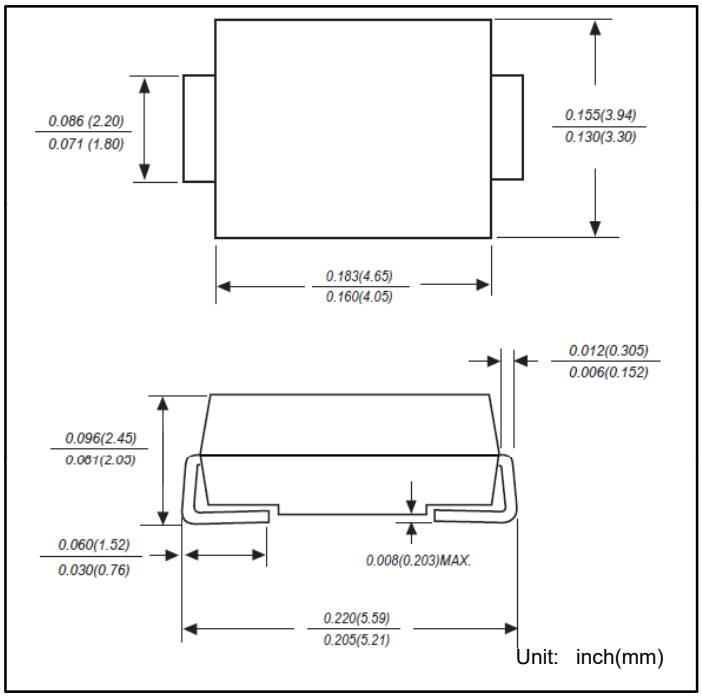
SMB3ZxxA SERIES

Surface Mount Silicon Zener Diodes

Zener Voltage 3.3 ~ 200 V

3.0 Watt Power Dissipation

DO214AA(SMB)



Features

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- For use in stabilizing and clipping with high power rating
- RoHS compliant

Mechanical Data

- Case: DO214AA Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Mounting position: Any

Parameter	Symbols	Value	Unit
DC Power dissipation at TL = 75 °C(1)	P_D	3.0	W
Maximum forward voltage at if=200mA	V_F	1.2	V
Junction temperature range	T_J , T_{STG}	-55 to +150	℃
Storage temperature range	T_J , T_{STG}	-55 to +150	℃

Note :

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

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

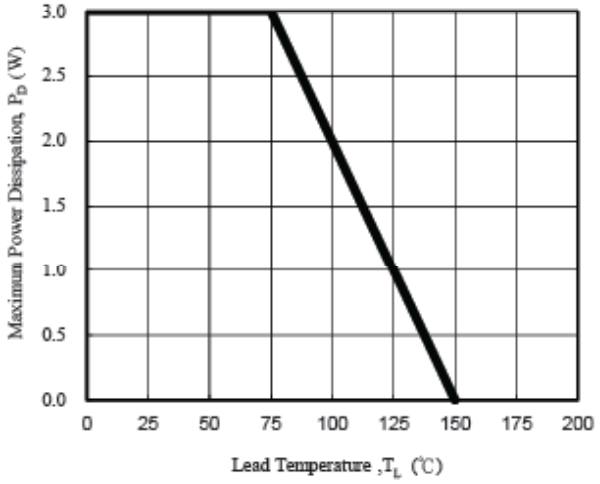


Fig. 1 - Power Temperature Derating Curve

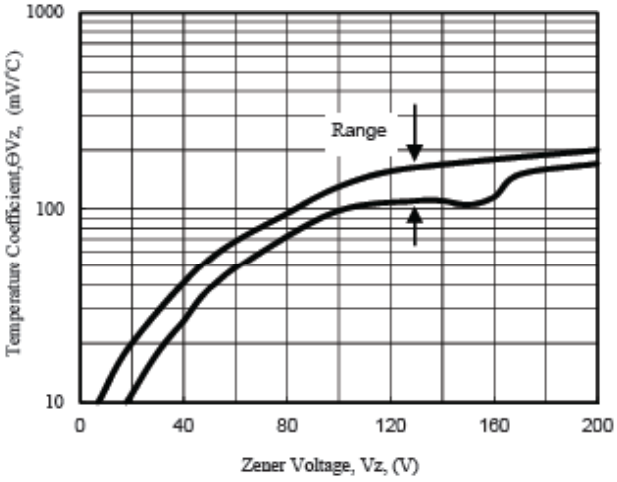


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

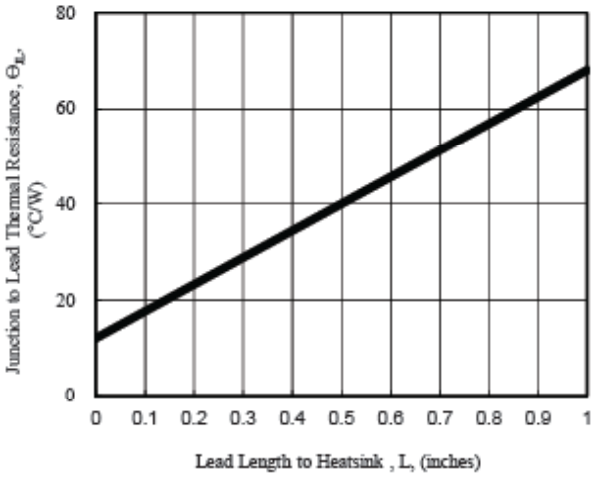


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

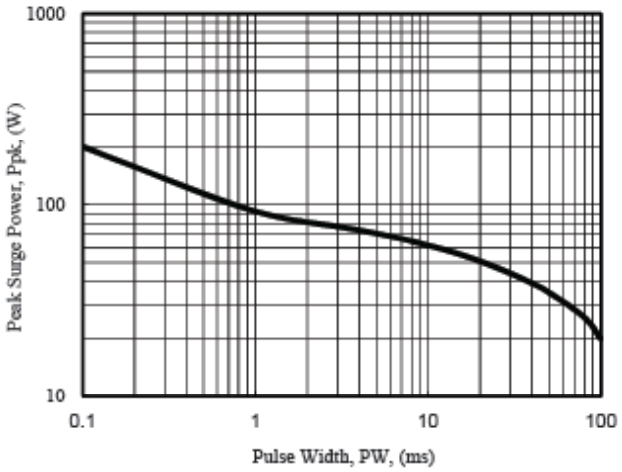


Fig. 4 - Maximum Surge Power

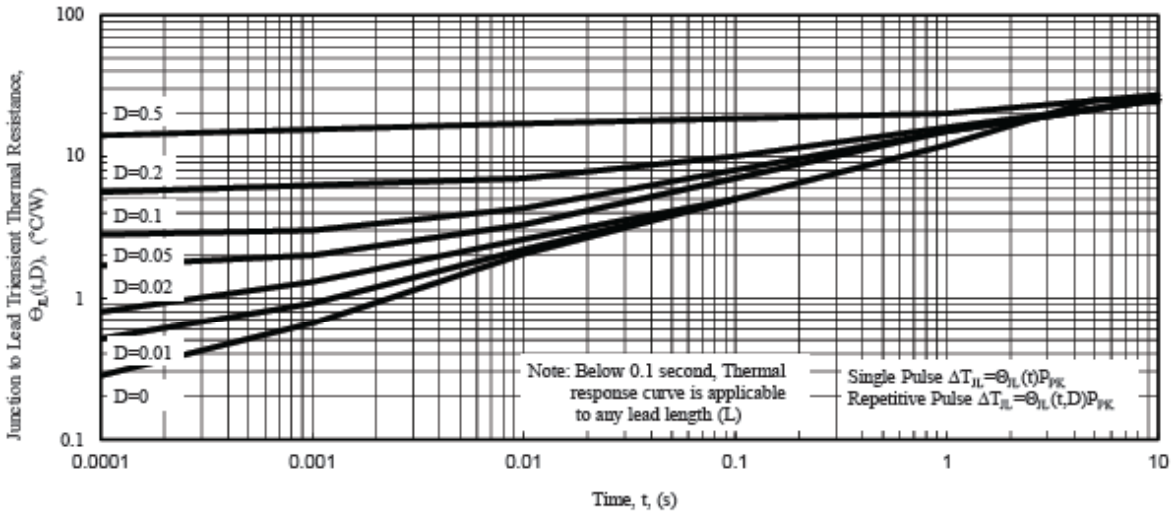


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

SMB3ZxxA SERIES

Part Number	Device Marking Code	Nominal Zener Voltage @I_T			I_{ZT}(mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_{Z\ AVE.}$(V)	$V_{Z\ MIN.}$(V)	$V_{Z\ MAX.}$(V)		$Z_{ZT\ MAX.}$(Ω) @I_{ZT}	$Z_{ZK\ MAX.}$(Ω) @I_{ZK}	I_{ZK}(mA)	I_R(uA)@V_R	V_R(V)	I_{ZM} (mA)
SMB3Z3.3A	3H0	3.3	3.14	3.47	227.3	10.0	500.0	1.00	100.0	1.0	817.0
SMB3Z3.6A	3H1	3.6	3.42	3.78	208.3	9.0	500.0	1.00	100.0	1.0	749.0
SMB3Z3.9A	3H2	3.9	3.71	4.10	192.0	4.5	400.0	1.00	100.0	1.0	691.0
SMB3Z4.3A	3H3	4.3	4.09	4.52	174.0	4.5	400.0	1.00	50.0	1.0	627.0
SMB3Z4.7A	3H4	4.7	4.47	4.94	160.0	4.0	500.0	1.00	50.0	1.0	573.0
SMB3Z5.1A	3H5	5.1	4.85	5.36	147.0	3.5	550.0	1.00	10.0	1.0	528.0
SMB3Z5.6A	3H6	5.6	5.32	5.88	134.0	2.5	600.0	1.00	10.0	2.0	481.0
SMB3Z6.2A	3A0	6.2	5.89	6.51	121.0	1.5	700.0	1.00	10.0	3.0	435.0
SMB3Z6.8A	3A1	6.8	6.46	7.14	110.0	2.0	700.0	1.00	10.0	4.0	393.0
SMB3Z7.5A	3A2	7.5	7.13	7.88	100.0	2.0	700.0	0.50	10.0	5.0	360.0
SMB3Z8.2A	3A3	8.2	7.79	8.61	91.0	2.3	700.0	0.50	10.0	6.0	330.0
SMB3Z9.1A	3A4	9.1	8.65	9.56	82.0	2.5	700.0	0.50	10.0	7.0	297.0
SMB3Z10A	3A5	10.0	9.50	10.50	75.0	3.5	700.0	0.25	10.0	7.6	270.0
SMB3Z11A	3A6	11.0	10.45	11.55	68.0	4.0	700.0	0.25	0.5	8.4	225.0
SMB3Z12A	3A7	12.0	11.40	12.60	63.0	4.5	700.0	0.25	0.5	9.1	246.0
SMB3Z13A	3A8	13.0	12.35	13.65	58.0	4.5	700.0	0.25	0.5	9.9	208.0
SMB3Z14A	3A9	14.0	13.30	14.70	53.0	5.0	700.0	0.25	0.5	10.6	193.0
SMB3Z15A	3B0	15.0	14.25	15.75	50.0	5.5	700.0	0.25	0.5	11.4	180.0
SMB3Z16A	3B1	16.0	15.20	16.80	47.0	5.5	700.0	0.25	0.5	12.2	169.0
SMB3Z17A	3B2	17.0	16.15	17.85	44.0	6.0	750.0	0.25	0.5	13.0	159.0
SMB3Z18A	3B3	18.0	17.10	18.90	42.0	6.0	750.0	0.25	0.5	13.7	150.0
SMB3Z19A	3B4	19.0	18.05	19.95	40.0	7.0	750.0	0.25	0.5	14.4	142.0
SMB3Z20A	3B5	20.0	19.00	21.00	37.0	7.0	750.0	0.25	0.5	15.2	135.0
SMB3Z22A	3B6	22.0	20.90	23.10	34.0	8.0	750.0	0.25	0.5	16.7	123.0
SMB3Z24A	3B7	24.0	22.80	25.20	31.0	9.0	750.0	0.25	0.5	18.2	112.0
SMB3Z27A	3B8	27.0	25.65	28.35	28.0	10.0	750.0	0.25	0.5	20.6	100.0
SMB3Z30A	3B9	30.0	28.50	31.50	25.0	16.0	1000.0	0.25	0.5	22.5	90.0
SMB3Z33A	3C0	33.0	31.35	34.65	23.0	20.0	1000.0	0.25	0.5	25.1	82.0
SMB3Z36A	3C1	36.0	34.20	37.80	21.0	22.0	1000.0	0.25	0.5	27.4	75.0
SMB3Z39A	3C2	39.0	37.05	40.95	19.0	28.0	1000.0	0.25	0.5	29.7	69.0
SMB3Z43A	3C3	43.0	40.85	45.15	17.0	33.0	1500.0	0.25	0.5	32.7	63.0
SMB3Z47A	3C4	47.0	44.65	49.35	16.0	38.0	1500.0	0.25	0.5	35.6	57.0
SMB3Z51A	3C5	51.0	48.45	53.55	15.0	45.0	1500.0	0.25	0.5	38.8	53.0
SMB3Z56A	3C6	56.0	53.20	58.80	13.0	50.0	2000.0	0.25	0.5	42.6	48.0
SMB3Z62A	3C7	62.0	58.90	65.10	12.0	55.0	2000.0	0.25	0.5	47.1	44.0
SMB3Z68A	3C8	68.0	64.60	71.40	11.0	70.0	2000.0	0.25	0.5	51.7	40.0
SMB3Z75A	3C9	75.0	71.25	78.75	10.0	85.0	2000.0	0.25	0.5	56.0	36.0
SMB3Z82A	3F0	82.0	77.90	86.10	9.1	95.0	3000.0	0.25	0.5	62.2	33.0
SMB3Z91A	3F1	91.0	86.45	95.55	8.2	115.0	3000.0	0.25	0.5	69.2	30.0
SMB3Z100A	3F2	100.0	95.00	105.00	7.5	160.0	3000.0	0.25	0.5	76.0	27.0
SMB3Z110A	3F3	110.0	104.50	115.50	6.8	225.0	4000.0	0.25	0.5	83.6	25.0
SMB3Z120A	3F4	120.0	114.00	126.00	6.3	300.0	4500.0	0.25	0.5	91.2	22.0
SMB3Z130A	3F5	130.0	123.50	136.50	5.8	375.0	5000.0	0.25	0.5	98.8	21.0
SMB3Z140A	3F6	140.0	133.00	147.00	5.3	475.0	5000.0	0.25	0.5	106.4	19.0
SMB3Z150A	3F7	150.0	142.50	157.50	5.0	550.0	6000.0	0.25	0.5	114.0	18.0
SMB3Z160A	3F8	160.0	152.00	168.00	4.7	625.0	6500.0	0.25	0.5	121.6	17.0
SMB3Z170A	3F9	170.0	161.50	178.50	4.4	650.0	7000.0	0.25	0.5	130.4	16.0
SMB3Z180A	3G1	180.0	171.00	189.00	4.2	700.0	7000.0	0.25	0.5	136.8	15.0
SMB3Z190A	3G2	190.0	180.50	199.50	4.0	800.0	8000.0	0.25	0.5	144.8	14.0
SMB3Z200A	3G3	200.0	190.00	210.00	3.7	875.0	8000.0	0.25	0.5	152.0	13.0