

V_Z: 3.3 to 200 V

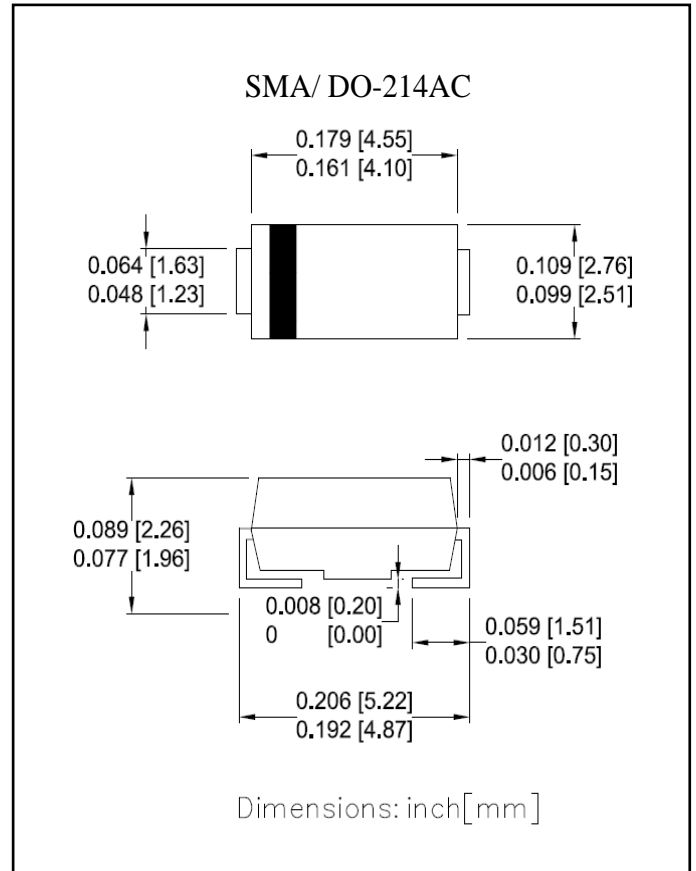
P_D: 1.5 W

Features

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping with high power rating

Mechanical Data

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



Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	UNIT
DC power dissipation at T _L = 75 °C ⁽¹⁾	P _D	1.5	W
Maximum forward voltage at I _F = 200 mA	V _F	1.5	V
Junction temperature range	T _J	- 55 to + 175	°C
Storage temperature range	T _{STG}	- 55 to + 175	°C

Note:

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

Ratings and Characteristics Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

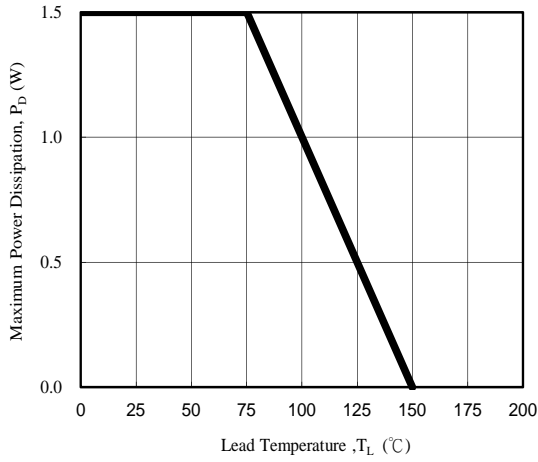


Fig. 1 - Power Temperature Derating Curve

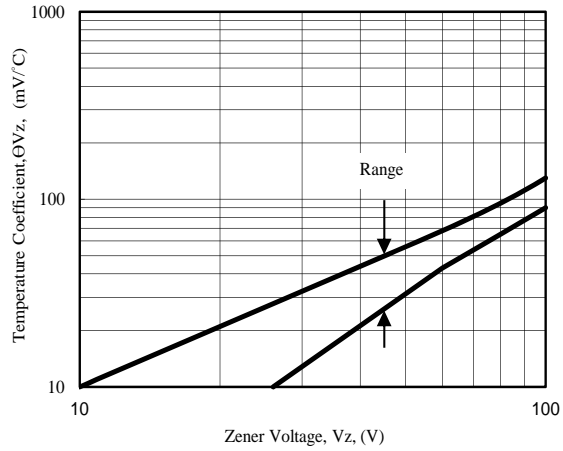


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

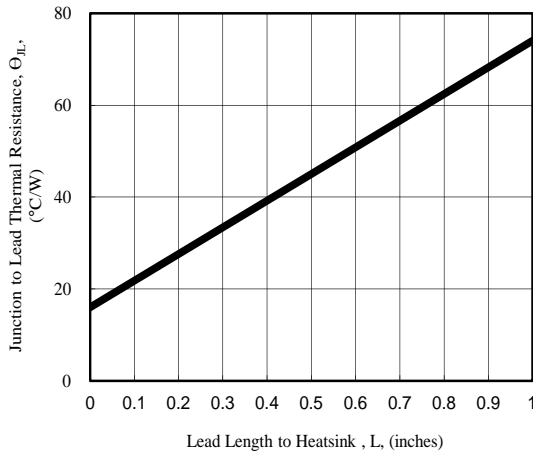


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

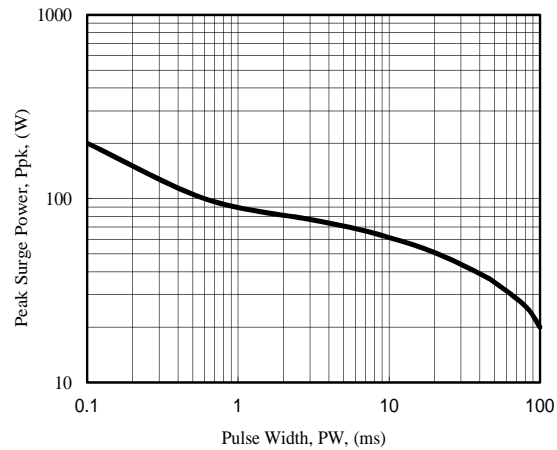


Fig. 4 - Maximum Surge Power

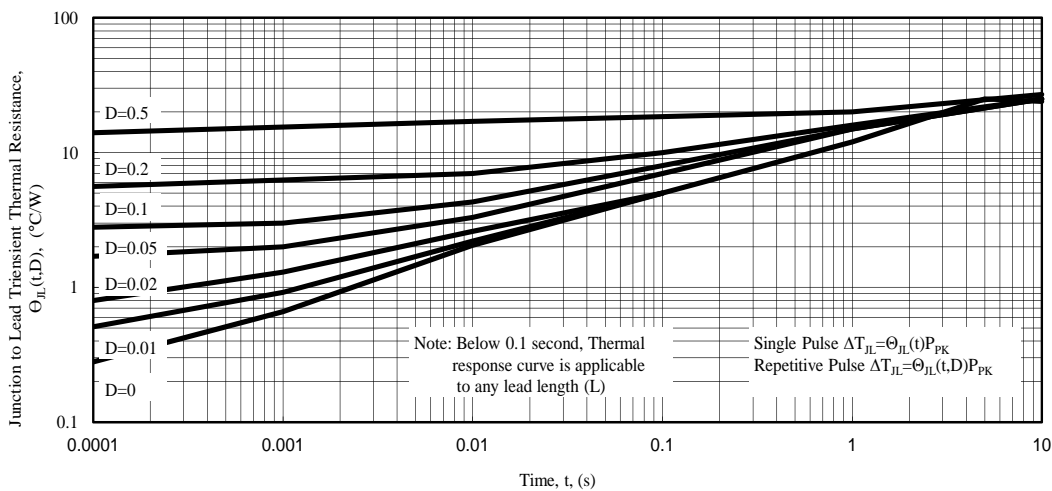


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number	Device Marking Code	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$		I_{ZM}
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
TSMA5913B	913B	3.3	113.6	10.0	500	1.00	100.0	1.0	454
TSMA5914B	914B	3.6	104.2	9.0	500	1.00	75.0	1.0	416
TSMA5915B	915B	3.9	96.1	7.5	500	1.00	25.0	1.0	384
TSMA5916B	916B	4.3	87.2	6.0	500	1.00	5.0	1.0	348
TSMA5917B	917B	4.7	79.8	5.0	500	1.00	5.0	1.5	319
TSMA5918B	918B	5.1	73.5	4.0	350	1.00	5.0	2.0	294
TSMA5919B	919B	5.6	66.9	2.0	250	1.00	5.0	3.0	267
TSMA5920B	920B	6.2	60.5	2.0	200	1.00	2.5	4.0	120
TSMA5921B	921B	6.8	55.1	2.5	200	1.00	2.5	5.2	220
TSMA5922B	922B	7.5	50.0	3.0	400	0.50	2.5	6.0	200
TSMA5923B	923B	8.2	45.7	3.5	400	0.50	2.5	6.5	182
TSMA5924B	924B	9.1	41.2	4.0	500	0.50	2.5	7.0	164
TSMA5925B	925B	10.0	37.5	4.5	500	0.25	2.5	8.0	150
TSMA5926B	926B	11.0	34.1	5.5	550	0.25	0.5	8.4	136
TSMA5927B	927B	12.0	31.2	6.5	550	0.25	0.5	9.1	125
TSMA5928B	928B	13.0	28.8	7.0	550	0.25	0.5	9.9	115
TSMA5929B	929B	15.0	25.0	9.0	600	0.25	0.5	11.4	100
TSMA5930B	930B	16.0	23.4	10.0	600	0.25	0.5	12.2	93
TSMA5931B	931B	18.0	20.8	12.0	650	0.25	0.5	13.7	83
TSMA5932B	932B	20.0	18.7	14.0	650	0.25	0.5	15.2	75
TSMA5933B	933B	22.0	17.0	17.5	650	0.25	0.5	16.7	68
TSMA5934B	934B	24.0	15.6	19.0	700	0.25	0.5	18.2	62
TSMA5935B	935B	27.0	13.9	23.0	700	0.25	0.5	20.6	55
TSMA5936B	936B	30.0	12.5	26.0	750	0.25	0.5	22.8	50
TSMA5937B	937B	33.0	11.4	33.0	800	0.25	0.5	25.1	45
TSMA5938B	938B	36.0	10.4	38.0	850	0.25	0.5	27.4	41
TSMA5939B	939B	39.0	9.6	45.0	900	0.25	0.5	29.7	38
TSMA5940B	940B	43.0	8.7	53.0	950	0.25	0.5	32.7	34
TSMA5941B	941B	47.0	8.0	67.0	1000	0.25	0.5	35.8	31
TSMA5942B	942B	51.0	7.3	70.0	1100	0.25	0.5	38.8	29
TSMA5943B	943B	56.0	6.7	86.0	1300	0.25	0.5	42.6	26
TSMA5944B	944B	62.0	6.0	100.0	1500	0.25	0.5	47.1	24
TSMA5945B	945B	68.0	5.5	120.0	1700	0.25	0.5	51.7	22
TSMA5946B	946B	75.0	5.0	140.0	2000	0.25	0.5	56.0	20
TSMA5947B	947B	82.0	4.6	160.0	2500	0.25	0.5	62.2	18
TSMA5948B	948B	91.0	4.1	200.0	3000	0.25	0.5	69.2	16
TSMA5949B	949B	100.0	3.7	250.0	3100	0.25	0.5	76.0	15
TSMA5950B	950B	110.0	3.4	300.0	4000	0.25	0.5	83.6	13
TSMA5951B	951B	120.0	3.1	380.0	4500	0.25	0.5	91.2	12
TSMA5952B	952B	130.0	2.9	450.0	5000	0.25	0.5	98.8	11
TSMA5953B	953B	150.0	2.5	600.0	6000	0.25	0.5	114.0	10
TSMA5954B	954B	160.0	2.3	700.0	6500	0.25	0.5	121.6	9
TSMA5955B	955B	180.0	2.1	900.0	7000	0.25	0.5	136.8	8
TSMA5956B	956B	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 $\pm 5\%$
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per method.