



SMC5341B THRU SMC5388B

ZENER DIODES

REVERSE VOLTAGE: 6.2 TO 200 VOLTS

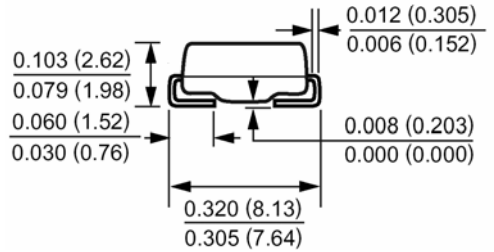
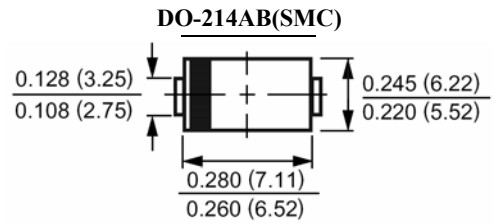
POWER DISSIPATION: 5.0 WATTS

FEATURES

- Glass passivation junction
- Low Leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- For use in stabilizing and clipping with high power rating
- RoHS compliant
- Suffix " H " indicated Halogen-free part, ex.SMC5341BH

MECHANICAL DATA

Case : Molded plastic DO-214AB(SMC)
 Epoxy : UL 94V-0 rate flame retardant
 Lead : Solderable per MIL-STD-202, method 208 guaranteed
 Polarity : Color band denotes cathode end
 Mounting position : Any



Dimensions in inches and (millimeters)

Absolute Maximum Ratings

T_A = 25 °C, unless otherwise specified

Parameter	Symbol	Value	Unit
DC Power Dissipation at T _L =75 °C ⁽¹⁾	P _D	5.0	W
Maximum Forward Voltage at I _F =1.0A	V _F	1.2	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



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Type	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum 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	Ohm		mA	uA	V	mA
SMC5341B	6.2	200	1.0	200	1.0	1.0	3.0	765.0
SMC5342B	6.8	175	1.0	200	1.0	10.0	5.2	700.0
SMC5343B	7.5	175	1.5	200	1.0	10.0	5.7	630.0
SMC5344B	8.2	150	1.5	200	1.0	10.0	6.2	580.0
SMC5345B	8.7	150	2.0	200	1.0	10.0	6.6	545.0
SMC5346B	9.1	150	2.0	150	1.0	7.5	6.9	520.0
SMC5347B	10.0	125	2.0	125	1.0	5.0	7.6	475.0
SMC5348B	11.0	125	2.5	125	1.0	5.0	8.4	430.0
SMC5349B	12.0	100	2.5	125	1.0	2.0	9.1	395.0
SMC5350B	13.0	100	2.5	100	1.0	1.0	9.9	365.0
SMC5351B	14.0	100	2.5	75	1.0	1.0	10.6	340.0
SMC5352B	15.0	75	2.5	75	1.0	1.0	11.5	315.0
SMC5353B	16.0	75	2.5	75	1.0	1.0	12.2	295.0
SMC5354B	17.0	70	2.5	75	1.0	0.5	12.9	280.0
SMC5355B	18.0	65	2.5	75	1.0	0.5	13.7	265.0
SMC5356B	19.0	65	3.0	75	1.0	0.5	14.4	250.0
SMC5357B	20.0	65	3.0	75	1.0	0.5	15.2	237.0
SMC5358B	22.0	50	3.5	75	1.0	0.5	16.7	216.0
SMC5359B	24.0	50	3.5	100	1.0	0.5	18.2	198.0
SMC5360B	25.0	50	4.0	110	1.0	0.5	19.0	190.0
SMC5361B	27.0	50	5.0	120	1.0	0.5	20.6	176.0
SMC5362B	28.0	50	6.0	130	1.0	0.5	21.2	170.0
SMC5363B	30.0	40	8.0	140	1.0	0.5	22.8	158.0
SMC5364B	33.0	40	10.0	150	1.0	0.5	25.1	144.0
SMC5365B	36.0	30	11.0	160	1.0	0.5	27.4	132.0
SMC5366B	39.0	30	14.0	170	1.0	0.5	29.7	122.0
SMC5367B	43.0	30	20.0	190	1.0	0.5	32.7	110.0
SMC5368B	47.0	25	25.0	210	1.0	0.5	35.8	100.0
SMC5369B	51.0	25	27.0	230	1.0	0.5	38.8	93.0
SMC5370B	56.0	20	35.0	280	1.0	0.5	42.6	86.0
SMC5371B	60.0	20	40.0	350	1.0	0.5	42.5	79.0
SMC5372B	62.0	20	42.0	400	1.0	0.5	47.1	76.0



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	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @V _R		I _{ZM}
	V	mA	Ohm		mA	uA	V	mA
SMC5373B	68.0	20	44.0	500	1.0	0.5	51.7	70.0
SMC5374B	75.0	20	45.0	620	1.0	0.5	56.0	63.0
SMC5375B	82.0	15	65.0	720	1.0	0.5	62.2	58.0
SMC5376B	87.0	15	75.0	760	1.0	0.5	66.0	54.5
SMC5377B	91.0	15	75.0	760	1.0	0.5	69.2	52.5
SMC5378B	100.0	12	90.0	800	1.0	0.5	76.0	47.5
SMC5379B	110.0	12	125.0	1000	1.0	0.5	83.6	43.0
SMC5380B	120.0	10	170.0	1150	1.0	0.5	91.2	39.5
SMC5381B	130.0	10	190.0	1250	1.0	0.5	98.8	36.6
SMC5382B	140.0	8	230.0	1500	1.0	0.5	106.0	34.0
SMC5383B	150.0	8	330.0	1500	1.0	0.5	114.0	31.6
SMC5384B	160.0	8	350.0	1650	1.0	0.5	122.0	29.4
SMC5385B	170.0	8	380.0	1750	1.0	0.5	129.0	28.0
SMC5386B	180.0	5	430.0	1750	1.0	0.5	137.0	26.4
SMC5387B	190.0	5	450.0	1850	1.0	0.5	144.0	25.0
SMC5388B	200.0	5	480.0	1850	1.0	0.5	152.0	23.6

- Note**
- The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %
 - The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method



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RATINGS AND CHARACTERISTIC CURVES

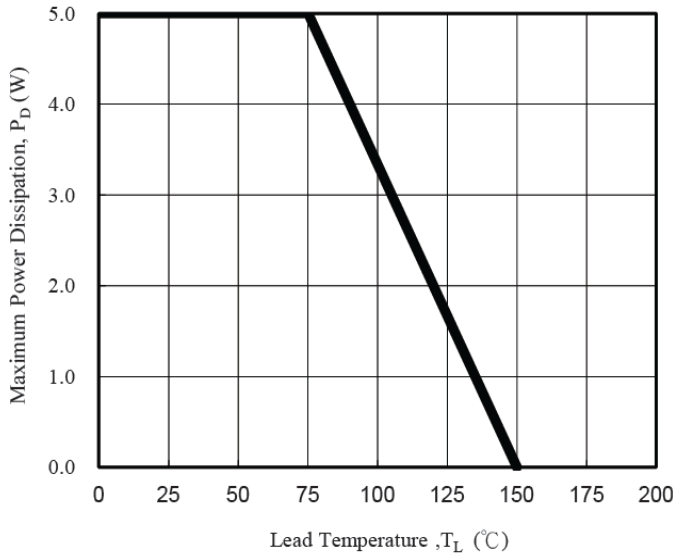


Fig. 1 - Power Temperature Derating Curve

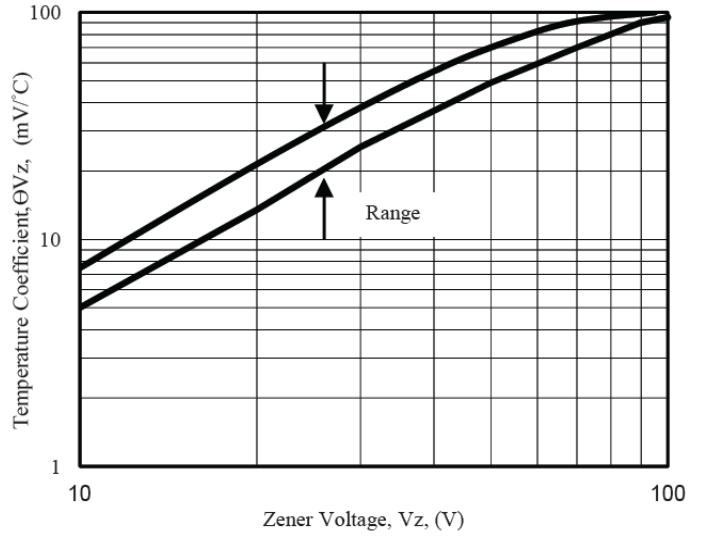


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

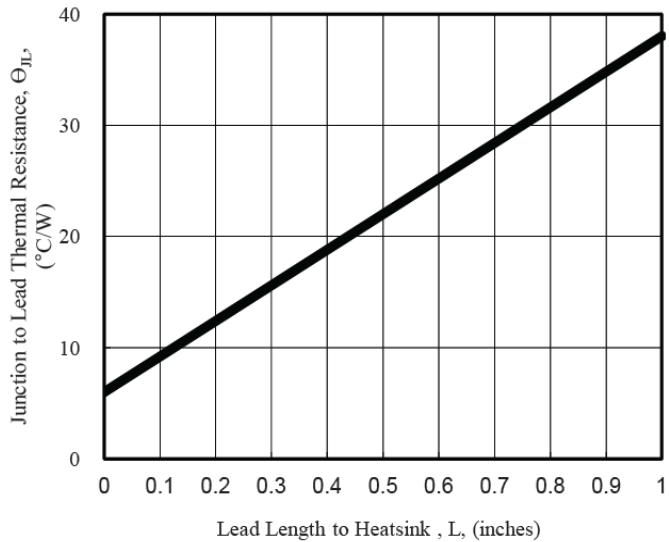


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

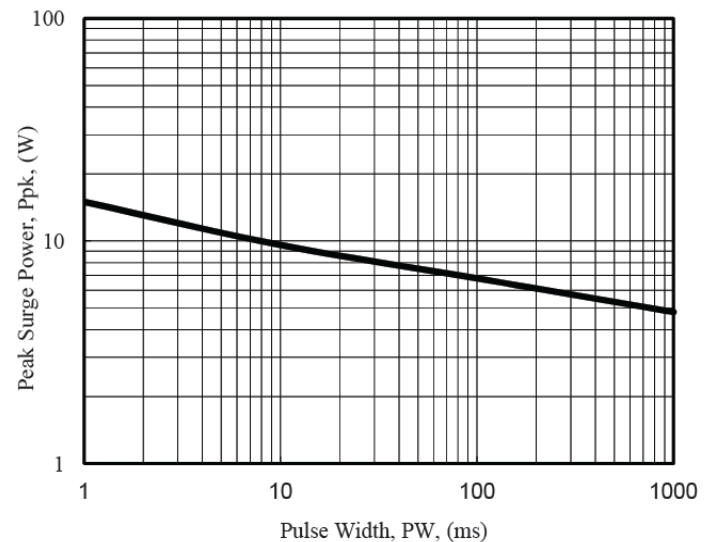


Fig. 4 - Maximum Surge Power

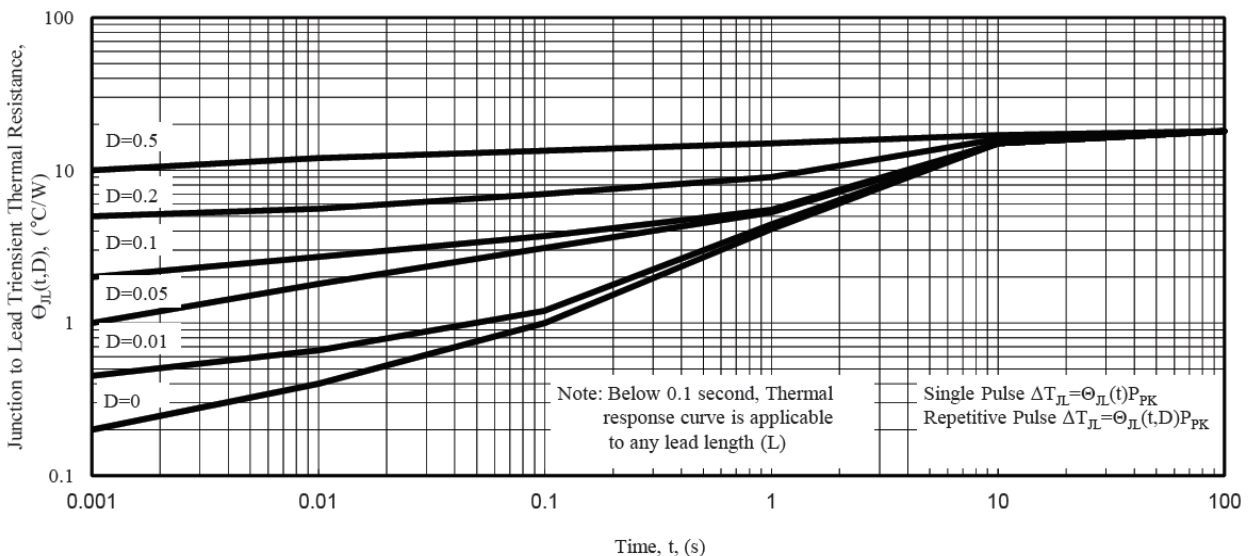


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch