

SMAJ5333A~SMAJ5388A

ZENER DIODES

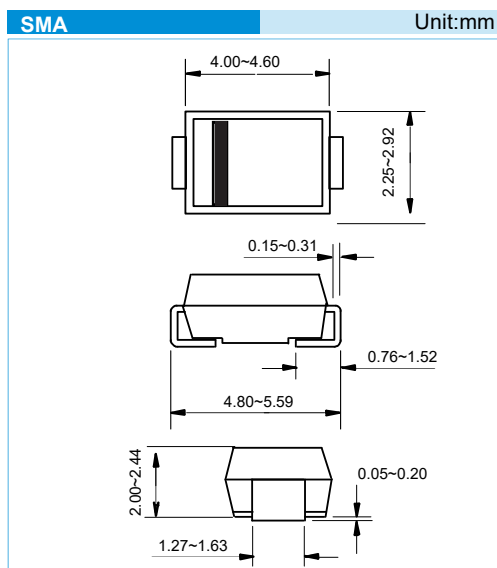
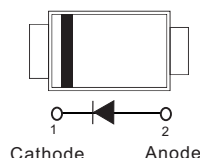
VOLTAGE	3.3 to 200 Volt	POWER	5.0 Watt
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FEATURES

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 200\text{mA}$	V_F	1.2	V
Power Dissipation(Note 1)	P_d	5.0	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

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ELECTRICAL CHARACTERISTICS @25°C

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)	
SMA5333A	333A	3.3	3.14	3.47	380	3.0	400	1.00	300	1.0	1437.0
SMA5334A	334A	3.6	3.42	3.78	350.0	2.5	500	1.00	150	1.0	1317.0
SMA5335A	335A	3.9	3.71	4.10	320.0	2.0	500	1.00	50	1.0	1216.0
SMA5336A	336A	4.3	4.09	4.52	290.0	2.0	500	1.00	10	1.0	1103.0
SMA5337A	337A	4.7	4.47	4.94	260.0	2.0	450	1.00	5	1.0	1009.0
SMA5338A	338A	5.1	4.85	5.36	240.0	1.5	400	1.00	1.0	1.0	930.0
SMA5339A	339A	5.6	5.32	5.88	220.0	1.0	400	1.00	1.0	2.0	846.0
SMA5340A	340A	6.0	5.70	6.30	200.0	1.0	300	1.00	1.0	3.0	790.0
SMA5341A	341A	6.2	5.89	6.51	200.0	1.0	200	1.00	1.0	3.0	765.0
SMA5342A	342A	6.8	6.46	7.14	175.0	1.0	200	1.00	10.0	5.2	700.0
SMA5343A	343A	7.5	7.13	7.88	175.0	1.5	200	1.00	10.0	5.7	630.0
SMA5344A	344A	8.2	7.79	8.61	150.0	1.5	200	1.00	10.0	6.2	580.0
SMA5345A	345A	8.7	8.27	9.14	150.0	2.0	200	1.00	10.0	6.6	545.0
SMA5346A	346A	9.1	8.65	9.56	150.0	2.0	150	1.00	7.5	6.9	520.0
SMA5347A	347A	10.0	9.50	10.50	125.0	2.0	125	1.00	5	7.6	475.0
SMA5348A	348A	11.0	10.45	11.55	125.0	2.5	125	1.00	5	8.4	430.0
SMA5349A	349A	12.0	11.40	12.60	100.0	2.5	125	1.00	2	9.1	395.0
SMA5350A	350A	13.0	12.35	13.65	100.0	2.5	100	1.00	1	9.9	365.0
SMA5351A	351A	14.0	13.30	14.70	100.0	2.5	75	1.00	1	10.6	340.0
SMA5352A	352A	15.0	14.25	15.75	75.0	2.5	75	1.00	1	11.5	315.0
SMA5353A	353A	16.0	15.20	16.80	75.0	2.5	75	1.00	1	12.2	295.0
SMA5354A	354A	17.0	16.15	17.85	70.0	2.5	75	1.00	0.5	12.9	280.0
SMA5355A	355A	18.0	17.10	18.90	65.0	2.5	75	1.00	0.5	13.7	265.0
SMA5356A	356A	19.0	18.05	19.95	65.0	3.0	75	1.00	0.5	14.4	250.0
SMA5357A	357A	20.0	19.00	21.00	65.0	3.0	75	1.00	0.5	15.2	237.0
SMA5358A	358A	22.0	20.90	23.10	50.0	3.5	75	1.00	0.5	16.7	216.0
SMA5359A	359A	24.0	22.80	25.20	50.0	3.5	100	1.00	0.5	18.2	198.0
SMA5360A	360A	25.0	23.75	26.25	50.0	4.0	110	1.00	0.5	19.0	190.0
SMA5361A	361A	27.0	25.65	28.35	50.0	5.0	120	1.00	0.5	20.6	176.0
SMA5362A	362A	28.0	26.60	29.40	50.0	6.0	130	1.00	0.5	21.2	170.0
SMA5363A	363A	30.0	28.50	31.50	40.0	8.0	140	1.00	0.5	22.8	158.0
SMA5364A	364A	33.0	31.35	34.65	40.0	10.0	150	1.00	0.5	25.1	144.0
SMA5365A	365A	36.0	34.20	37.80	30.0	11.0	160	1.00	0.5	27.4	132.0
SMA5366A	366A	39.0	37.05	40.95	30.0	14.0	170	1.00	0.5	29.7	122.0
SMA5367A	367A	43.0	40.85	45.15	30.0	20.0	190	1.00	0.5	32.7	110.0
SMA5368A	368A	47.0	44.65	49.35	25.0	25.0	210	1.00	0.5	35.8	100.0
SMA5369A	369A	51.0	48.45	53.55	25.0	27.0	230	1.00	0.5	38.8	93.0
SMA5370A	370A	56.0	53.20	58.80	20.0	35.0	280	1.00	0.5	42.6	86.0
SMA5371A	371A	60.0	57.00	63.00	20.0	40.0	350	1.00	0.5	42.5	79.0
SMA5372A	372A	62.0	58.90	65.10	20.0	42.0	400	1.00	0.5	47.1	76.0
SMA5373A	373A	68.0	64.60	71.40	20.0	44.0	500	1.00	0.5	51.7	70.0
SMA5374A	374A	75.0	71.25	78.75	20.0	45.0	620	1.00	0.5	56.0	63.0
SMA5375A	375A	82.0	77.90	86.10	15.0	65.0	720	1.00	0.5	62.2	58.0
SMA5376A	376A	87.0	82.65	91.35	15.0	75.0	760	1.00	0.5	66.0	54.5
SMA5377A	377A	91.0	86.45	95.55	15.0	75.0	760	1.00	0.5	69.2	52.5
SMA5378A	378A	100.0	95.00	105.00	12.0	90.0	800	1.00	0.5	76.0	47.5
SMA5379A	379A	110.0	104.50	115.50	12.0	125.0	1000	1.00	0.5	83.6	43.0
SMA5380A	380A	120.0	114.00	126.00	10.0	170.0	1150	1.00	0.5	91.2	39.5
SMA5381A	381A	130.0	123.50	136.50	10.0	190.0	1250	1.00	0.5	98.8	36.6
SMA5382A	382A	140.0	133.00	147.00	8.0	230.0	1500	1.00	0.5	106.0	34.0
SMA5383A	383A	150.0	142.50	157.50	8.0	330.0	1500	1.00	0.5	114.0	31.6
SMA5384A	384A	160.0	152.00	168.00	8.0	350.0	1650	1.00	0.5	122.0	29.4
SMA5385A	385A	170.0	161.50	178.50	8.0	380.0	1750	1.00	0.5	129.0	28.0
SMA5386A	386A	180.0	171.00	189.00	5.0	430.0	1750	1.00	0.5	137.0	26.4
SMA5387A	387A	190.0	180.50	199.50	5.0	450.0	1850	1.00	0.5	144.0	25.0
SMA5388A	388A	200.0	190.00	210.00	5.0	480.0	1850	1.00	0.5	152.0	23.6

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RATING AND CHARACTERISTIC CURVES

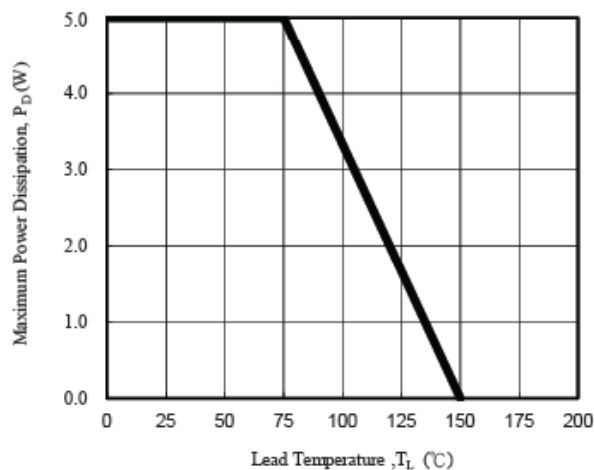


Fig. 1 - Power Temperature Derating Curve

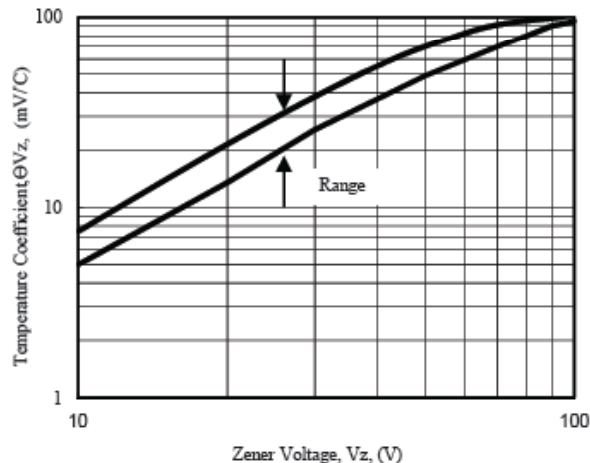


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

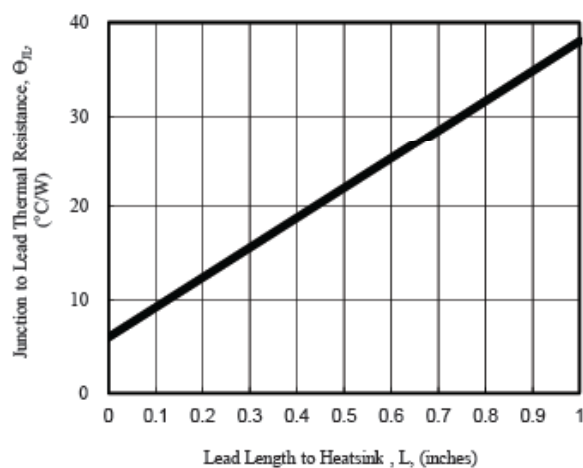


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

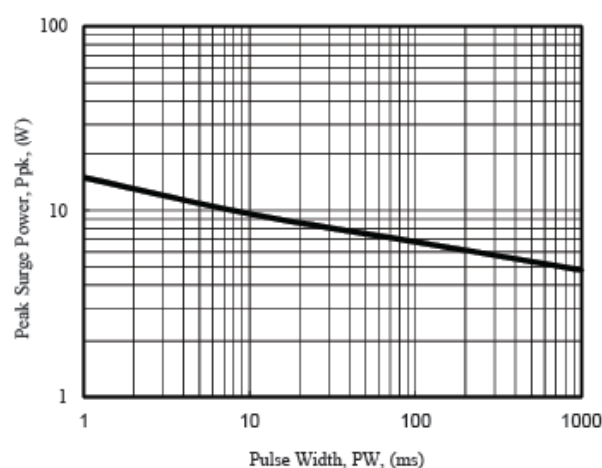


Fig. 4 - Maximum Surge Power

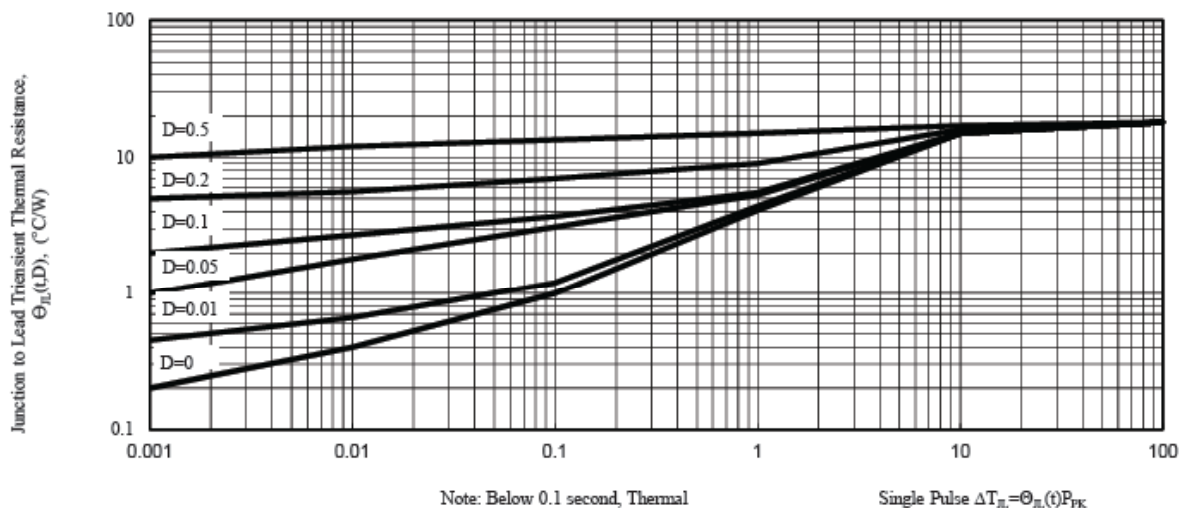


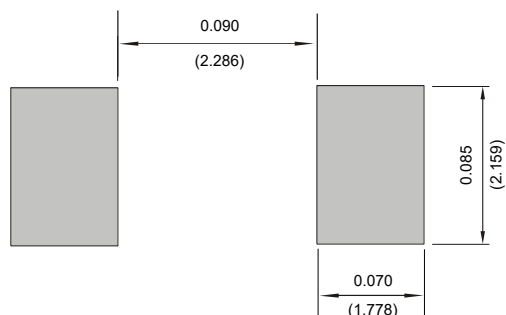
Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

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MOUNTING PAD LAYOUT

SMA / DO-214AC

Unit:Inch(mm)



ORDER INFORMATION

• Packing information

Part Number	Case	Reel Size	QUANTITY
SMAJ5333A~SMAJ5388A	SMA	13 Inch	5000