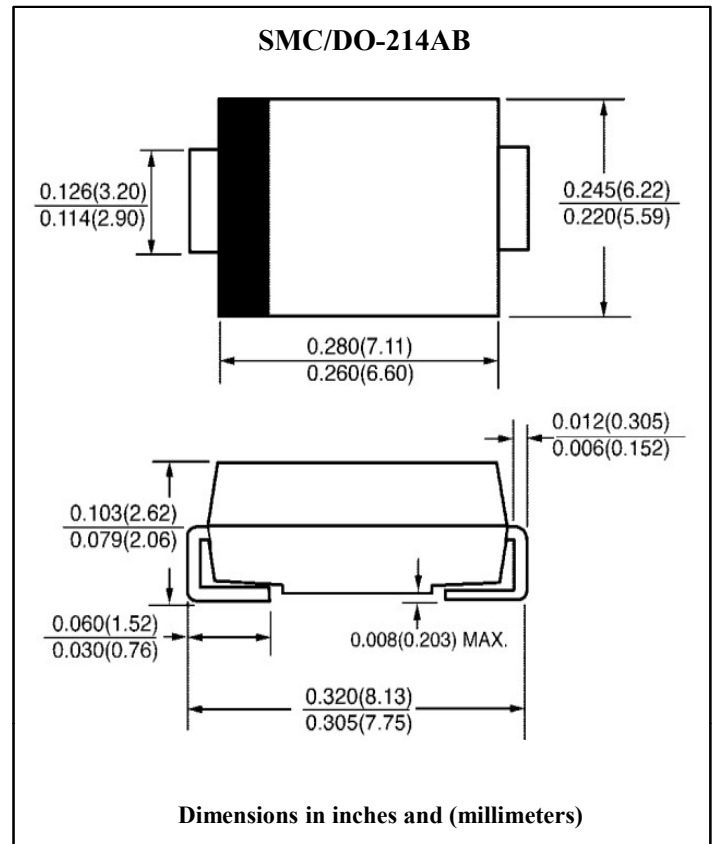
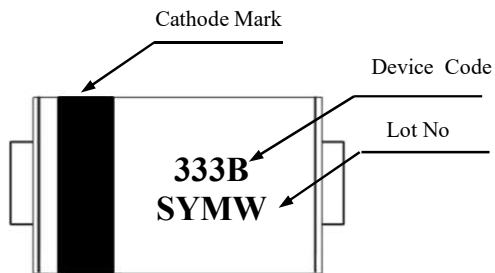


**Surface Mount Zener Diodes**  
**Power Dissipation 5W, Zener Voltage 3.3 to 200V**
**Features**

- Plastics package has underwriters laboratory flammability classification 94V-0
- Low profile package with built-in strain relief for surface mounted application
- Glass passivated junction
- High peak reverse power dissipation
- For use in stabilizing and clipping with high power rating
- High temperature soldering guaranteed : 250°C/10 seconds at terminals
- RoHS compliant

**Mechanical Data**

- Case : JEDEC DO-214AB(SMC) molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes the cathode end
- Mounting position : Any
- Weight : approx. 0.21grams


**Marking**

**Maximum Ratings** (Ta=25°C unless otherwise noted)

Parameter	Symbol	Rated Value	Unit	Remark
DC Power Dissipation at $T_L = 75^\circ\text{C}$	$P_D$	5.0	W	Note 1
Maximum Forward Voltage at $I_F = 1\text{A}$	$V_F$	1.2	V	Note 1
Operating Junction Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$	

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



**Electrical Characteristics** (Ta=25°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)	(uA)	(V)	(mA)
SPZ5333B	333B	3.3	380	3.0	400	1.0	300	1.0	1437
SPZ5334B	334B	3.6	350	2.5	500	1.0	150	1.0	1317
SPZ5335B	335B	3.9	320	2.0	500	1.0	50	1.0	1216
SPZ5336B	336B	4.3	290	2.0	500	1.0	10	1.0	1103
SPZ5337B	337B	4.7	260	2.0	450	1.0	5.0	1.0	1009
SPZ5338B	338B	5.1	240	1.5	400	1.0	1.0	1.0	930
SPZ5339B	339B	5.6	220	1.0	400	1.0	1.0	2.0	846
SPZ5340B	340B	6	200	1.0	300	1.0	1.0	3.0	790
SPZ5341B	341B	6.2	200	1.0	200	1.0	1.0	3.0	765
SPZ5342B	342B	6.8	175	1.0	200	1.0	10	5.2	700
SPZ5343B	343B	7.5	175	1.5	200	1.0	10	5.7	630
SPZ5344B	344B	8.2	150	1.5	200	1.0	10	6.2	580
SPZ5345B	345B	8.7	150	2.0	200	1.0	10	6.6	545
SPZ5346B	346B	9.1	150	2.0	150	1.0	7.5	6.9	520
SPZ5347B	347B	10	125	2.0	125	1.0	5.0	7.6	475
SPZ5348B	348B	11	125	2.5	125	1.0	5.0	8.4	430
SPZ5349B	349B	12	100	2.5	125	1.0	2.0	9.1	395
SPZ5350B	350B	13	100	2.5	100	1.0	1.0	9.9	365
SPZ5351B	351B	14	100	2.5	75	1.0	1.0	10.6	340
SPZ5352B	352B	15	75	2.5	75	1.0	1.0	11.5	315
SPZ5353B	353B	16	75	2.5	75	1.0	1.0	12.2	295
SPZ5354B	354B	17	70	2.5	75	1.0	0.5	12.9	280
SPZ5355B	355B	18	65	2.5	75	1.0	0.5	13.7	265
SPZ5356B	356B	19	65	3.0	75	1.0	0.5	14.4	250
SPZ5357B	357B	20	65	3.0	75	1.0	0.5	15.2	237
SPZ5358B	358B	22	50	3.5	75	1.0	0.5	16.7	216
SPZ5359B	359B	24	50	3.5	100	1.0	0.5	18.2	198
SPZ5360B	360B	25	50	4.0	110	1.0	0.5	19.0	190
SPZ5361B	361B	27	50	5.0	120	1.0	0.5	20.6	176
SPZ5362B	362B	28	50	6.0	130	1.0	0.5	21.2	170
SPZ5363B	363B	30	40	8.0	140	1.0	0.5	22.8	158
SPZ5364B	364B	33	40	10	150	1.0	0.5	25.1	144
SPZ5365B	365B	36	30	11	160	1.0	0.5	27.4	132
SPZ5366B	366B	39	30	14	170	1.0	0.5	29.7	122
SPZ5367B	367B	43	30	20	190	1.0	0.5	32.7	110
SPZ5368B	368B	47	25	25	210	1.0	0.5	35.8	100
SPZ5369B	369B	51	25	27	230	1.0	0.5	38.8	93
SPZ5370B	370B	56	20	35	280	1.0	0.5	42.6	86

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 JEDEC method

**Electrical Characteristics** (Ta=25°C unless otherwise noted)

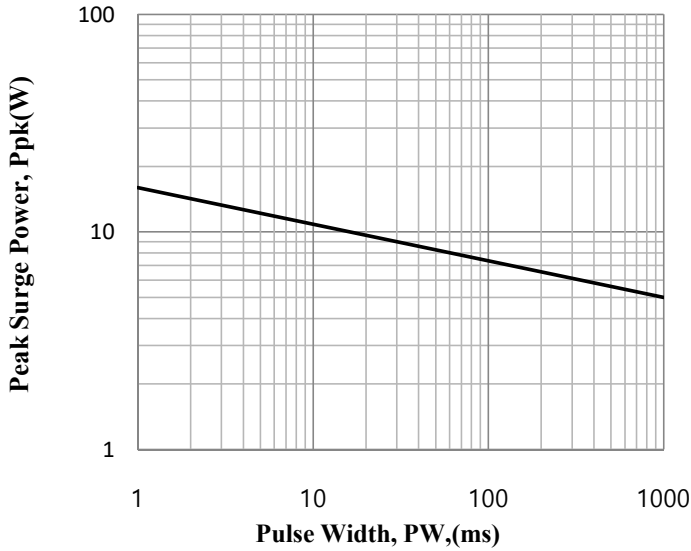
Part Number	Device Marking Code	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		$V_Z@I_{ZT}$	$I_{ZT}$	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	$I_{ZK}$	$I_R@V_R$		$I_{ZM}$
		(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)
SPZ5371B	371B	60	20	40	350	1.0	0.5	45.5	79.0
SPZ5372B	372B	62	20	42	400	1.0	0.5	47.1	76.0
SPZ5373B	373B	68	20	44	500	1.0	0.5	51.7	70.0
SPZ5374B	374B	75	20	45	620	1.0	0.5	56.0	63.0
SPZ5375B	375B	82	15	65	720	1.0	0.5	62.2	58.0
SPZ5376B	376B	87	15	75	760	1.0	0.5	66.0	54.5
SPZ5377B	377B	91	15	75	760	1.0	0.5	69.2	52.5
SPZ5378B	378B	100	12	90	800	1.0	0.5	76.0	47.5
SPZ5379B	379B	110	12	125	1000	1.0	0.5	83.6	43.0
SPZ5380B	380B	120	10	170	1150	1.0	0.5	91.2	39.5
SPZ5381B	381B	130	10	190	1250	1.0	0.5	98.8	36.6
SPZ5382B	382B	140	8.0	230	1500	1.0	0.5	106	34.0
SPZ5383B	383B	150	8.0	330	1500	1.0	0.5	114	31.6
SPZ5384B	384B	160	8.0	350	1650	1.0	0.5	122	29.4
SPZ5385B	385B	170	8.0	380	1750	1.0	0.5	129	28.0
SPZ5386B	386B	180	5.0	430	1750	1.0	0.5	137	26.4
SPZ5387B	387B	190	5.0	450	1850	1.0	0.5	144	25.0
SPZ5388B	388B	200	5.0	480	1850	1.0	0.5	152	23.6

**Notes :**

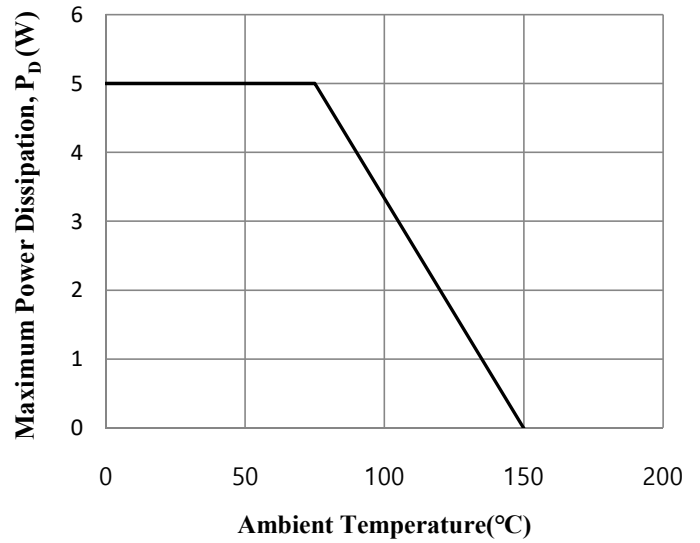
- (1) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on  $I_{ZT}$  per JEDEC method

Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

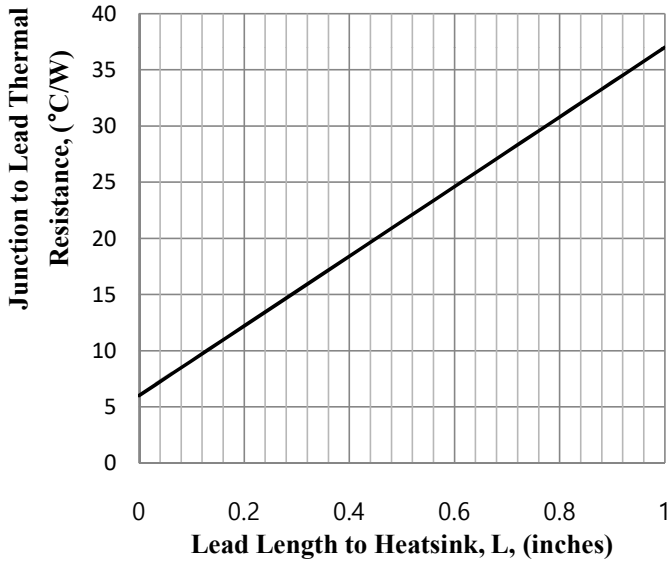
**Fig.1 Maximum Surge Power**



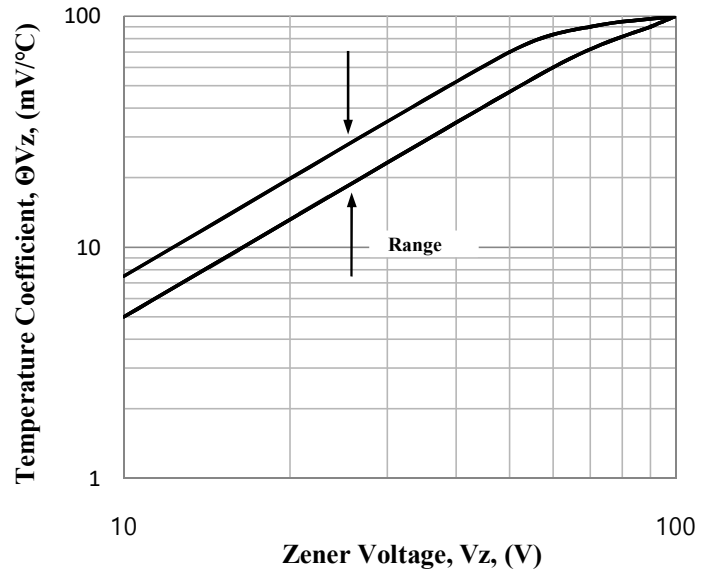
**Fig. 2 Power Temperature Derating Curve**



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



**Fig. 4 Temperature Coefficients v.s. Zener Voltage**



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

