

These molded-type Zener diodes are suitable for high density surface mounting on printed circuit boards. They can be used to regulate voltages between 2.4 and 51 V.

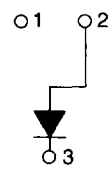
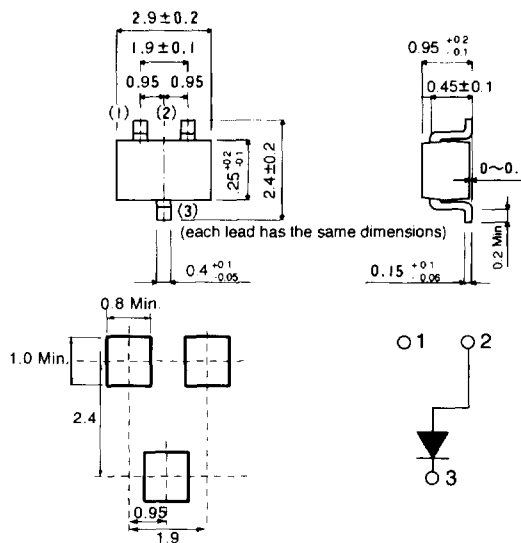
Features

- available in SSD3 (SSD, US/European SOT-23) package (similar to SC-59)
- all products are marked with a 3-digit marking, see following table

Applications

- voltage regulating

Dimensions (Units : mm)



Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit	Conditions
Power dissipation	P_{d1}	300	mW	Device mounted on $7 \times 5 \times 0.6$ mm ceramic substrate
	P_{d2}	225		Device mounted on $25.4 \times 13.5 \times 1.57$ mm FR-5 board
Junction temperature	T_j	175	$^\circ\text{C}$	
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$	

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$) (Sheet 1 of 2)

Part no.	Marking	Zener voltage subdivision ¹			Operating resistance ²		Rising operating resistance		Reverse current		Temp coeff $\frac{\partial V_Z}{\partial T}$ (%/°C)
		V_Z (V)		I_Z (mA)	Z_Z (Ω) Max	I_Z (mA)	Z_{ZK} (Ω) Max	I_Z (mA)	I_R (μA) Max	V_R (V)	
		Min	Max								
RSZ5221B	18A	2.28	2.52	20	30	20	1200	0.25	100	1.0	-0.085
RSZ5222B	18B	2.38	2.63	20	30	20	1250	0.25	100	1.0	-0.085
RSZ5223B	18C	2.57	2.84	20	30	20	1300	0.25	75	1.0	-0.080
RSZ5224B	18D	2.66	2.94	20	30	20	1400	0.25	75	1.0	-0.080
RSZ5225B	18E	2.85	3.15	20	29	20	1600	0.25	50	1.0	-0.075
RSZ5226B	8A	3.14	3.47	20	28	20	1600	0.25	25	1.0	-0.070
RSZ5227B	8B	3.42	3.78	20	24	20	1700	0.25	15	1.0	-0.065
RSZ5228B	8C	3.71	4.10	20	23	20	1900	0.25	10	1.0	-0.060
RSZ5229B	8D	4.09	4.52	20	22	20	2000	0.25	5.0	1.0	± 0.055
RSZ5230B	8E	4.47	4.94	20	19	20	1900	0.25	5.0	2.0	± 0.030
RSZ5231B	8F	4.85	5.36	20	17	20	1600	0.25	5.0	2.0	± 0.030
RSZ5232B	8G	5.32	5.88	20	11	20	1600	0.25	5.0	3.0	+0.038
RSZ5233B	8H	5.70	6.30	20	7.0	20	1600	0.25	5.0	3.5	+0.038
RSZ5234B	8J	5.89	6.51	20	7.0	20	1000	0.25	5.0	4.0	+0.045
RSZ5235B	8K	6.46	7.14	20	5.0	20	750	0.25	3.0	5.0	+0.050
RSZ5236B	8L	7.13	7.88	20	6.0	20	500	0.25	3.0	6.0	+0.058
RSZ5237B	8M	7.79	8.61	20	8.0	20	500	0.25	3.0	6.5	+0.062
RSZ5238B	8N	8.27	9.14	20	8.0	20	600	0.25	3.0	6.5	+0.065
RSZ5239B	8P	8.65	9.56	20	10	20	600	0.25	3.0	7.0	+0.068
RSZ5240B	8Q	9.50	10.50	20	17	20	600	0.25	3.0	8.0	+0.075
RSZ5241B	8R	10.45	11.55	20	22	20	600	0.25	2.0	8.4	+0.076
RSZ5242B	8S	11.40	12.60	20	30	20	600	0.25	1.0	9.1	+0.077
RSZ5243B	8T	12.35	13.65	9.5	13	9.5	600	0.25	0.5	9.9	+0.079
RSZ5244B	8U	13.30	14.70	9.0	15	9.0	600	0.25	0.1	10.0	+0.082
RSZ5245B	8V	14.25	15.75	8.5	16	8.5	600	0.25	0.1	11.0	+0.082
RSZ5246B	8W	15.20	16.80	7.8	17	7.8	600	0.25	0.1	12.0	+0.083
RSZ5247B	8X	16.15	17.85	7.4	19	7.4	600	0.25	0.1	13.0	+0.084
RSZ5248B	8Y	17.10	18.90	7.0	21	7.0	600	0.25	0.1	14.0	+0.085
RSZ5249B	8Z	18.05	19.95	6.6	23	6.6	600	0.25	0.1	14.0	+0.086

RSZ5200B series Zener diodes

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$) (Sheet 2 of 2)

Part no.	Marking	Zener voltage subdivision ¹			Operating resistance ²		Rising operating resistance		Reverse current		Temp coeff θV_z (%/°C)
		V_Z (V)		I_Z (mA)	Z_Z (Ω) Max	I_Z (mA)	Z_{ZK} (Ω) Max	I_Z (mA)	I_R (μA) Max	V_R (V)	
		Min	Max								
RSZ5250B	81A	19.00	21.00	6.2	25	6.2	600	0.25	0.1	15.0	+0.086
RSZ5251B	81B	20.90	23.10	5.6	29	5.6	600	0.25	0.1	17.0	+0.087
RSZ5252B	81C	22.80	25.20	5.2	33	5.2	600	0.25	0.1	18.0	+0.088
RSZ5253B	81D	23.75	26.25	5.0	35	5.0	600	0.25	0.1	19.0	+0.089
RSZ5254B	81E	25.65	28.35	4.6	41	4.6	600	0.25	0.1	21.0	+0.090
RSZ5255B	81F	26.60	29.40	4.5	44	4.5	600	0.25	0.1	21.0	+0.091
RSZ5256B	81G	28.50	31.50	4.2	49	4.2	600	0.25	0.1	23.0	+0.091
RSZ5257B	81H	31.35	34.65	3.8	58	3.8	700	0.25	0.1	25.0	+0.092
RSZ5258B	81J	34.20	37.80	3.4	70	3.4	700	0.25	0.1	27.0	+0.093
RSZ5259B	81K	37.05	40.95	3.2	80	3.2	800	0.25	0.1	30.0	+0.094
RSZ5260B	18F	40.85	45.15	3.0	93	3.0	900	0.25	0.1	33.0	+0.095
RSZ5261B	18G	44.65	49.35	2.7	105	2.7	1000	0.25	0.1	36.0	+0.095
RSZ5262B	81L	48.45	53.55	2.5	125	2.5	1000	0.25	0.1	39.0	+0.096

¹ The Zener voltage subdivision (V_Z) is measured in a steady state.

² The operating resistance (Z_Z and Z_{ZK}) is measured by superimposing a minute alternating current in the regulated current (I_Z).

Electrical characteristic curves

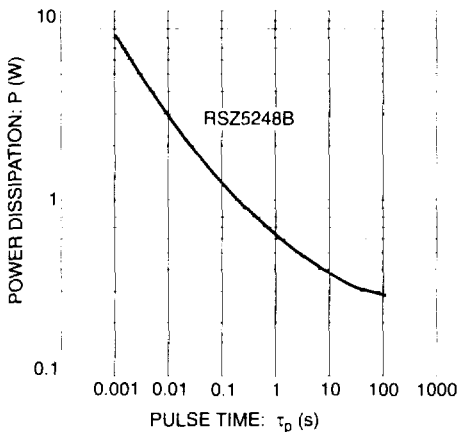


Figure 1

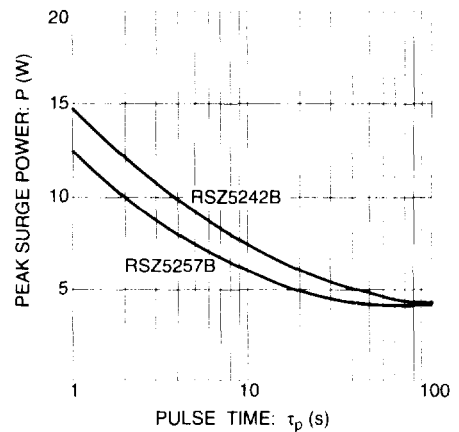


Figure 2

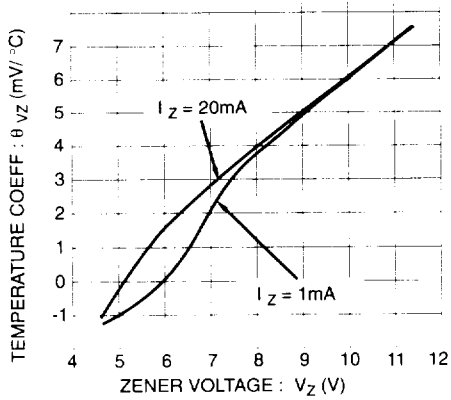


Figure 3

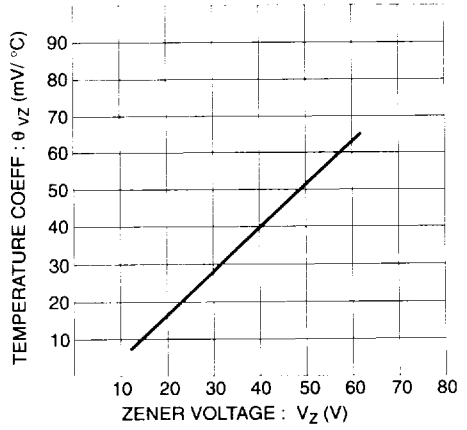


Figure 4

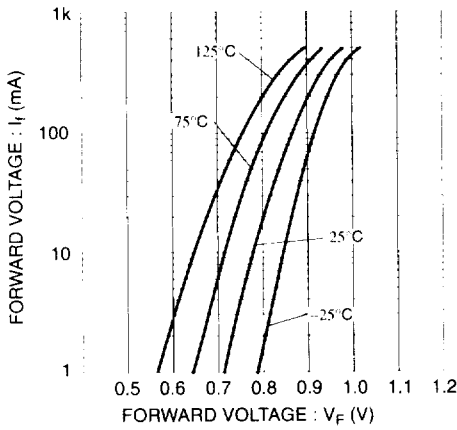


Figure 5

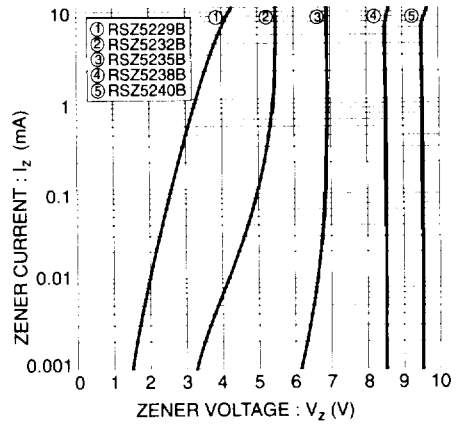


Figure 6

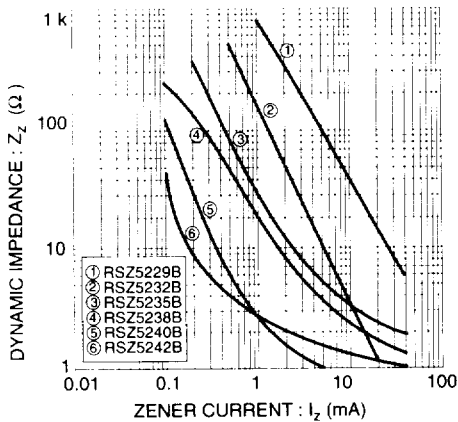


Figure 7

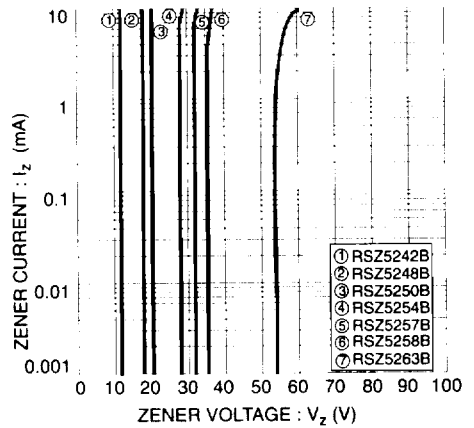


Figure 8