

500mW ZENERS IN QFN 1.2x1.5 mm² PACKAGE

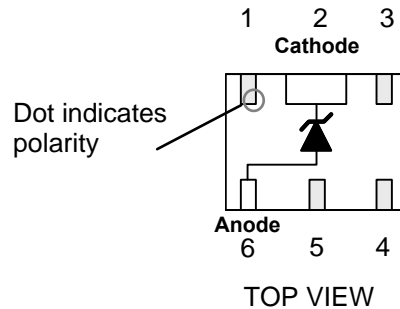
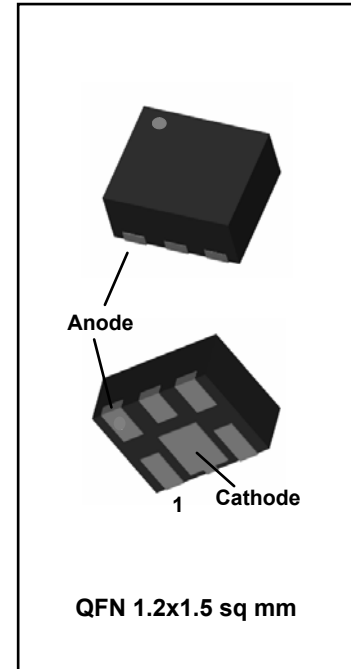
This new PANJIT Zener family comes in a very small package that only uses 1.8 sq mm PCB area. With a maximum power dissipation rating of 500mW, the PJBZ5200Q Series is an industry first. Its superior power-footprint ratio of 278mW per sq mm, makes it ideal for applications where board space is a premium.

SPECIFICATION FEATURES

- Working Peak Reverse Voltage Range - 2.4V to 39V
- 5% Tolerance (2% Optional)
- 500mW at minimum pad mounting conditions, Room Temperature
- Low profile QFN1.2x1.5 sq mm Package
- Close Compatibility with the SC75 package layout

APPLICATIONS

- Camcorders, MP3 Players, Digital still cameras
- Handheld/Laptop Computers
- Portable Instrumentation Electronics



MAXIMUM RATINGS $T_j = 25^\circ\text{C}$

Rating	Symbol	Value	Units
Power dissipation, minimum pad mounting	P_d	500	mW
Thermal resistance Case to Ambient	$R_{th\ CA}$	180	$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	$^\circ\text{C}$
Lead Soldering Temperature (max 10 secs)	T_L	260	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS Tj = 25°C

PRELIMINARY

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max. Reverse Leakage Current		Marking Code	Package
	Vz @ IzT			ZzT @ IzT		Zzk @ IzK		Ir @ Vr			
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V		
500 mWatts Zener Diodes in the QFN 1.2x1.5 sq mm Height 0.75mm											
PJBZ5221Q	2.40	2.28	2.52	30	20.0	1200	0.25	100	1.0	21	QFN1.2x1.5
PJBZ5222Q	2.50	2.38	2.63	30	20.0	1250	0.25	100	1.0	22	QFN1.2x1.5
PJBZ5223Q	2.70	2.57	2.84	30	20.0	1300	0.25	75	1.0	23	QFN1.2x1.5
PJBZ5224Q	2.80	2.66	2.94	30	20.0	1400	0.25	75	1.0	24	QFN1.2x1.5
PJBZ5225Q	3.00	2.85	3.15	29	20.0	1600	0.25	50	1.0	25	QFN1.2x1.5
PJBZ5226Q	3.30	3.14	3.47	28	20.0	1600	0.25	25	1.0	26	QFN1.2x1.5
PJBZ5227Q	3.60	3.42	3.78	24	20.0	1700	0.25	15	1.0	27	QFN1.2x1.5
PJBZ5228Q	3.90	3.71	4.10	23	20.0	1900	0.25	10	1.0	28	QFN1.2x1.5
PJBZ5229Q	4.30	4.09	4.52	22	20.0	2000	0.25	5.0	1.0	29	QFN1.2x1.5
PJBZ5230Q	4.70	4.47	4.94	19	20.0	1900	0.25	5.0	2.0	30	QFN1.2x1.5
PJBZ5231Q	5.10	4.85	5.36	17	20.0	1600	0.25	5.0	2.0	31	QFN1.2x1.5
PJBZ5232Q	5.60	5.32	5.88	11	20.0	1600	0.25	5.0	3.0	32	QFN1.2x1.5
PJBZ5233Q	6.00	5.70	6.30	7	20.0	1600	0.25	5.0	3.5	33	QFN1.2x1.5
PJBZ5234Q	6.20	5.89	6.51	7	20.0	1000	0.25	5.0	4.0	34	QFN1.2x1.5
PJBZ5235Q	6.80	6.46	7.14	5	20.0	750	0.25	3.0	5.0	35	QFN1.2x1.5
PJBZ5236Q	7.50	7.13	7.88	6	20.0	500	0.25	3.0	6.0	36	QFN1.2x1.5
PJBZ5237Q	8.20	7.79	8.61	8	20.0	500	0.25	3.0	6.5	37	QFN1.2x1.5
PJBZ5238Q	8.70	8.27	9.14	8	20.0	600	0.25	3.0	6.5	38	QFN1.2x1.5
PJBZ5239Q	9.10	8.65	9.56	10	20.0	600	0.25	3.0	7.0	39	QFN1.2x1.5
PJBZ5240Q	10.00	9.50	10.50	17	20.0	600	0.25	3.0	8.0	40	QFN1.2x1.5
PJBZ5241Q	11.00	10.45	11.55	22	20.0	600	0.25	2.0	8.4	41	QFN1.2x1.5
PJBZ5242Q	12.00	11.40	12.60	30	20.0	600	0.25	1.0	9.1	42	QFN1.2x1.5
PJBZ5243Q	13.00	12.35	13.65	13	9.5	600	0.25	0.5	9.9	43	QFN1.2x1.5
PJBZ5244Q	14.00	13.30	14.70	15	9.0	600	0.25	0.1	10.0	44	QFN1.2x1.5
PJBZ5245Q	15.00	14.25	15.75	16	8.5	600	0.25	0.1	11.0	45	QFN1.2x1.5
PJBZ5246Q	16.00	15.20	16.80	17	7.8	600	0.25	0.1	12.0	46	QFN1.2x1.5
PJBZ5247Q	17.00	16.15	17.85	19	7.4	600	0.25	0.1	13.0	47	QFN1.2x1.5
PJBZ5248Q	18.00	17.10	18.90	21	7.0	600	0.25	0.1	14.0	48	QFN1.2x1.5
PJBZ5249Q	19.00	18.05	19.95	23	6.6	600	0.25	0.1	14.0	49	QFN1.2x1.5
PJBZ5250Q	20.00	19.00	21.00	25	6.2	600	0.25	0.1	15.0	50	QFN1.2x1.5
PJBZ5251Q	22.00	20.90	23.10	29	5.6	600	0.25	0.1	17.0	51	QFN1.2x1.5
PJBZ5252Q	24.00	22.80	25.20	33	5.2	600	0.25	0.1	18.0	52	QFN1.2x1.5
PJBZ5253Q	25.00	23.75	26.25	35	5.0	600	0.25	0.1	19.0	53	QFN1.2x1.5
PJBZ5254Q	27.00	25.65	28.35	41	4.6	600	0.25	0.1	21.0	54	QFN1.2x1.5
PJBZ5255Q	28.00	26.60	29.40	44	4.5	600	0.25	0.1	21.0	55	QFN1.2x1.5
PJBZ5256Q	30.00	28.50	31.50	49	4.2	600	0.25	0.1	23.0	56	QFN1.2x1.5
PJBZ5257Q	33.00	31.35	34.65	58	3.8	700	0.25	0.1	25.0	57	QFN1.2x1.5
PJBZ5258Q	36.00	34.20	37.80	70	3.4	700	0.25	0.1	27.0	58	QFN1.2x1.5
PJBZ5259Q	39.00	37.05	40.95	80	3.2	800	0.25	0.1	30.0	59	QFN1.2x1.5

PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS

PRELIMINARY

