

DATA SHEET

BZQ5221B SERIES

SURFACE MOUNT ZENER DIODES

VOLTAGE 2.4 to 47 Volts

POWER 500 mWatts

QUADRO-MELF

Unit : inch (mm)

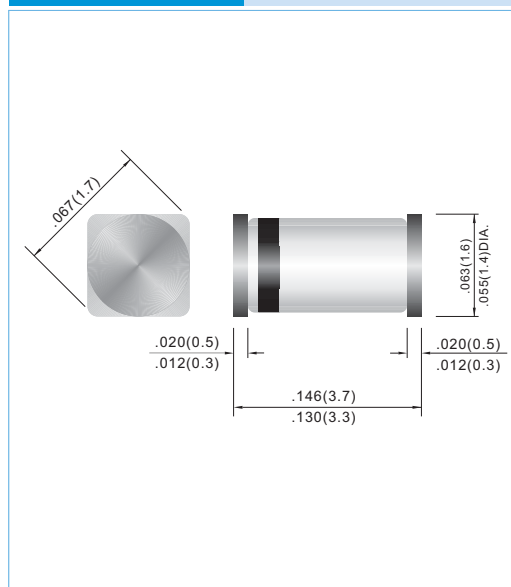
FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes

MECHANICAL DATA

- Case: Molded Glass QUADRO-MELF
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram Below
- Approx. Weight: 0.008 grams
- Mounting Position: Any
- Packing information

T/R - 2.5K per 7" plastic Reel



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation at Tamb = 25 °C	P _{TOT}	500	mW
Junction Temperature	T _J	175	°C
Storage Temperature Range	T _S	-65 to +175	°C
Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.			

Parameter	Symbol	Min.	Typ.	Max.	Units
Thermal Resistance Junction to Ambient Air	R _{thA}	--	--	0.3	K/mW
Forward Voltage at I _F = 100mA	V _F	--	--	1	V
Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.					

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current	
	V _Z @ I _{ZT}			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	uA	V
BZQ5221B	2.4	2.28	2.52	30	20	1200	0.25	100	1.0
BZQ5222B	2.5	2.38	2.63	30	20	1250	0.25	100	1.0
BZQ5223B	2.7	2.57	2.84	30	20	1300	0.25	75	1.0
BZQ5224B	2.8	2.66	2.94	30	20	1400	0.25	75	1.0
BZQ5225B	3.0	2.85	3.15	29	20	1600	0.25	50	1.0
BZQ5226B	3.3	3.14	3.47	28	20	1600	0.25	25	1.0
BZQ5227B	3.6	3.42	3.78	24	20	1700	0.25	15	1.0
BZQ5228B	3.9	3.71	4.10	23	20	1900	0.25	10	1.0
BZQ5229B	4.3	4.09	4.52	22	20	2000	0.25	5	1.0
BZQ5230B	4.7	4.47	4.94	19	20	1900	0.25	5	2.0
BZQ5231B	5.1	4.85	5.36	17	20	1600	0.25	5	2.0
BZQ5232B	5.6	5.32	5.88	11	20	1600	0.25	5	3.0
BZQ5233B	6.0	5.70	6.30	7	20	1600	0.25	5	3.5
BZQ5234B	6.2	5.89	6.51	7	20	1000	0.25	5	4.0
BZQ5235B	6.8	6.46	7.14	5	20	750	0.25	3	5.0
BZQ5236B	7.5	7.13	7.88	6	20	500	0.25	3	6.0
BZQ5237B	8.2	7.79	8.61	8	20	500	0.25	3	6.5
BZQ5238B	8.7	8.26	9.13	8	20	600	0.25	3	6.5
BZQ5239B	9.1	8.65	9.56	10	20	600	0.25	3	7.0
BZQ5240B	10	9.50	10.50	17	20	600	0.25	3	8.0
BZQ5241B	11	10.45	11.55	22	20	600	0.25	2	8.4
BZQ5242B	12	11.40	12.60	30	20	600	0.25	1	9.1
BZQ5243B	13	12.35	13.65	13	9.5	600	0.25	0.5	9.9
BZQ5244B	14	13.30	14.70	15	9.0	600	0.25	0.1	10
BZQ5245B	15	14.25	15.75	16	8.5	600	0.25	0.1	11
BZQ5246B	16	15.20	16.80	17	7.8	600	0.25	0.1	12
BZQ5247B	17	16.15	17.85	19	7.4	600	0.25	0.1	13
BZQ5248B	18	17.10	18.90	21	7.0	600	0.25	0.1	14
BZQ5249B	19	18.05	19.95	23	6.6	600	0.25	0.1	14
BZQ5250B	20	19.00	21.00	25	6.2	600	0.25	0.1	15
BZQ5251B	22	20.90	23.10	29	5.6	600	0.25	0.1	17
BZQ5252B	24	22.80	25.20	33	5.2	600	0.25	0.1	18
BZQ5253B	25	23.75	26.25	35	5.0	600	0.25	0.1	19
BZQ5254B	27	25.65	28.35	41	4.6	600	0.25	0.1	21
BZQ5255B	28	26.60	29.40	44	4.5	600	0.25	0.1	21
BZQ5256B	30	28.50	31.50	49	4.2	600	0.25	0.1	23
BZQ5257B	33	31.35	34.65	58	3.8	700	0.25	0.1	25
BZQ5258B	36	34.20	37.80	70	3.4	700	0.25	0.1	27
BZQ5259B	39	37.05	40.95	80	3.2	800	0.25	0.1	30
BZQ5260B	43	40.85	45.15	93	3.0	900	0.25	0.1	33
BZQ5261B	47	44.65	49.35	150	2.7	100	0.25	0.1	36

Notes.

STANDARD VOLTAGE TOLERANCE IS + 5% AND :

SUFFIX " A " FOR + 3%

SUFFIX " B " FOR + 5%

SUFFIX " C " FOR + 10%

SUFFIX " D " FOR + 20%

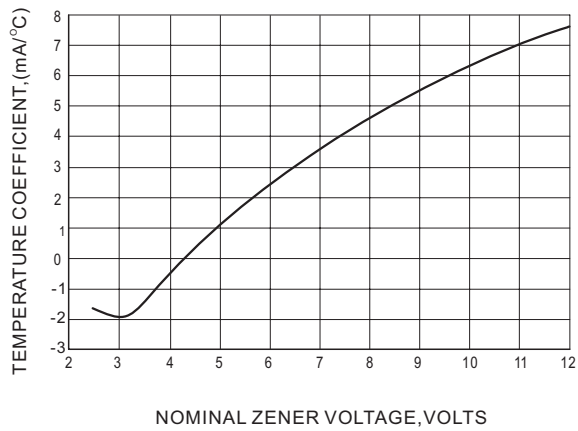


Fig.1 TEMPERATURE COEFFICIENTS

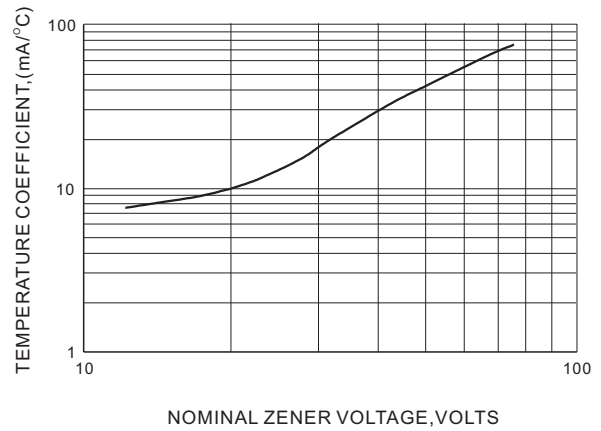


Fig.2 TEMPERATURE COEFFICIENTS

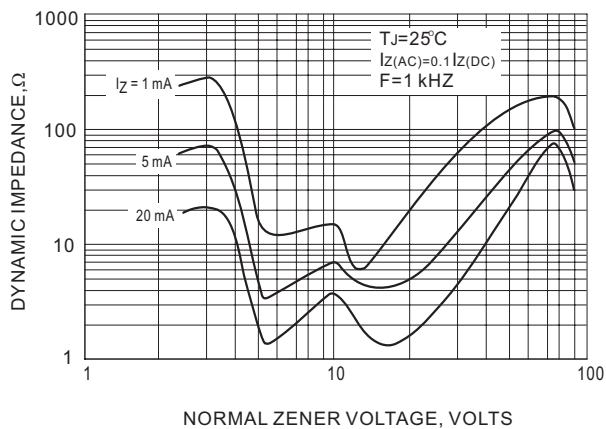


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

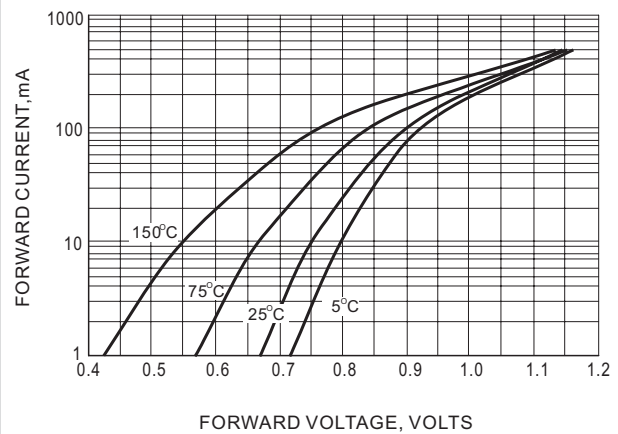


Fig.4 TYPICAL FORWARD VOLTAGE

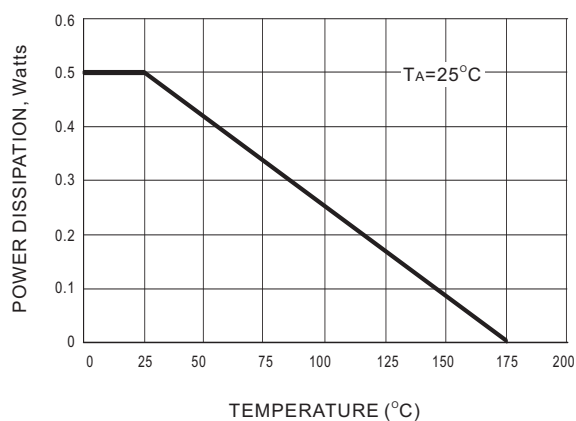


Fig.5 STEADY STATE POWER DERATING

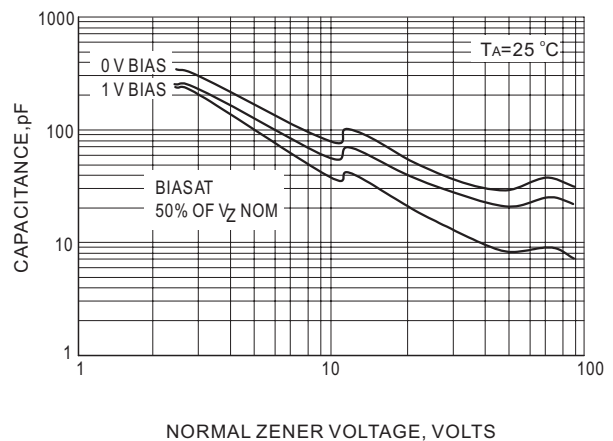


Fig.6 TYPICAL CAPACITANCE

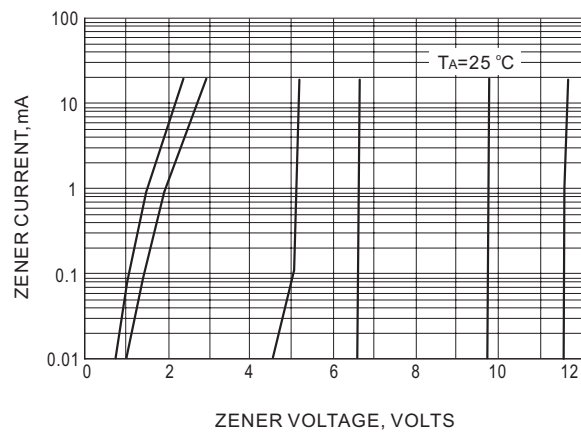


Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

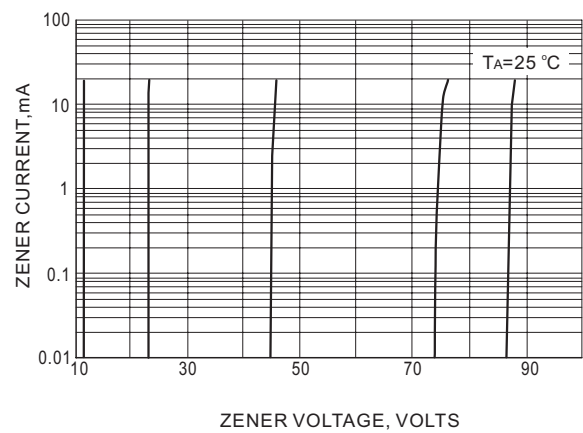


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

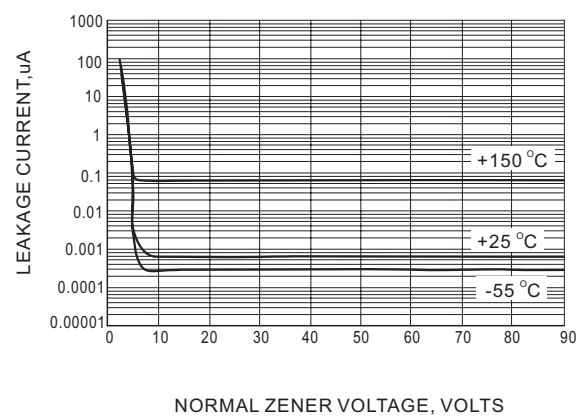


Fig.9 TYPICAL LEAKAGE CURRENT