

DATA SHEET

BZQ55-C2V4 SERIES

SURFACE MOUNT ZENER DIODES

VOLTAGE 2.4 to 47 Volts

POWER 500 mWatts

QUADRO-MELF

Unit : inch (mm)

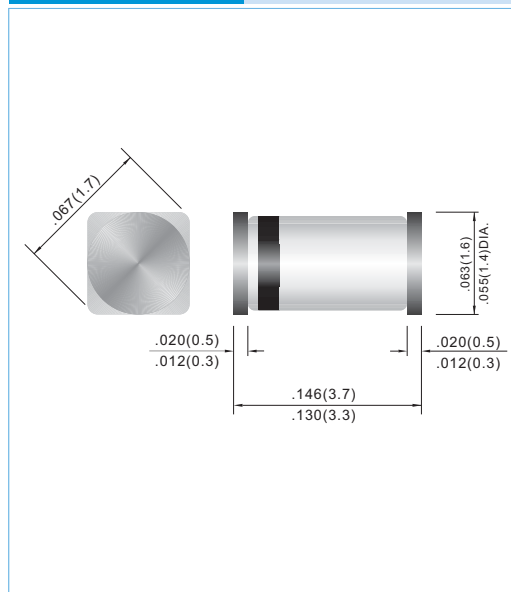
FEATURES

- 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 8mm 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 8mm 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
BZQ55-C2V4	2.4	2.28	2.56	85	5	600	1.0	50	1.0
BZQ55-C2V7	2.7	2.5	2.9	85	5	600	1.0	10	1.0
BZQ55-C3V0	3.0	2.8	3.2	85	5	600	1.0	4	1.0
BZQ55-C3V3	3.3	3.1	3.5	85	5	600	1.0	2	1.0
BZQ55-C3V6	3.6	3.4	3.8	85	5	600	1.0	2	1.0
BZQ55-C3V9	3.9	3.7	4.1	85	5	600	1.0	2	1.0
BZQ55-C4V3	4.3	4.0	4.6	75	5	600	1.0	1	1.0
BZQ55-C4V7	4.7	4.4	5.0	60	5	600	1.0	0.5	1.0
BZQ55-C5V1	5.1	4.8	5.4	35	5	550	1.0	0.1	1.0
BZQ55-C5V6	5.6	5.2	6.0	25	5	450	1.0	0.1	1.0
BZQ55-C6V2	6.2	5.8	6.6	10	5	200	1.0	0.1	2.0
BZQ55-C6V8	6.8	6.4	7.2	8	5	150	1.0	0.1	3.0
BZQ55-C7V5	7.5	7.0	7.9	7	5	50	1.0	0.1	5.0
BZQ55-C8V2	8.2	7.7	8.7	7	5	50	1.0	0.1	6.0
BZQ55-C9V1	9.1	8.5	9.6	10	5	50	1.0	0.1	7.0
BZQ55-C10	10	9.4	10.6	15	5	70	1.0	0.1	7.5
BZQ55-C11	11	10.4	11.6	20	5	70	1.0	0.1	8.5
BZQ55-C12	12	11.4	12.7	20	5	90	1.0	0.1	9.0
BZQ55-C13	13	12.4	14.1	26	5	110	1.0	0.1	10
BZQ55-C15	15	13.8	15.6	30	5	110	1.0	0.1	11
BZQ55-C16	16	15.3	17.1	40	5	170	1.0	0.1	12
BZQ55-C18	18	16.8	19.1	50	5	170	1.0	0.1	14
BZQ55-C20	20	18.8	21.2	55	5	220	1.0	0.1	15
BZQ55-C22	22	20.8	23.3	55	5	220	1.0	0.1	17
BZQ55-C24	24	22.8	25.6	80	5	220	1.0	0.1	18
BZQ55-C27	27	25.1	28.9	80	5	220	1.0	0.1	20
BZQ55-C30	30	28	32	80	5	220	1.0	0.1	22
BZQ55-C33	33	31	35	80	5	220	1.0	0.1	24
BZQ55-C36	36	34	38	80	5	220	1.0	0.1	27
BZQ55-C39	39	37	41	90	2.5	500	1.0	0.1	30
BZQ55-C43	43	40	46	90	2.5	600	1.0	0.1	33
BZQ55-C47	47	44	50	110	2.5	700	1.0	0.1	36

Notes.

STANDARD VOLTAGE TOLERANCE IS + 5% AND :

SUFFIX " A " FOR + 1%

SUFFIX " B " FOR + 2%

SUFFIX " C " FOR + 5%

SUFFIX " D " FOR + 20%

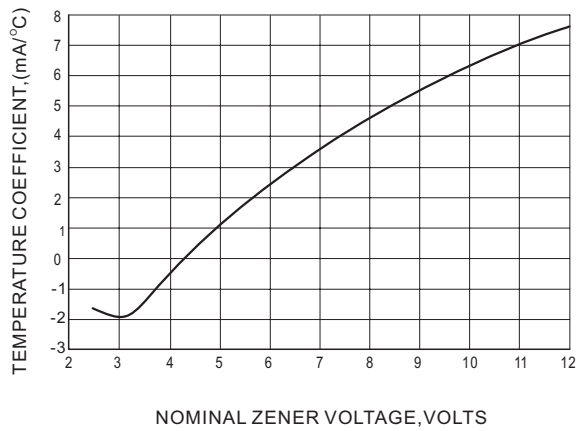


Fig.1 TEMPERATURE COEFFICIENTS

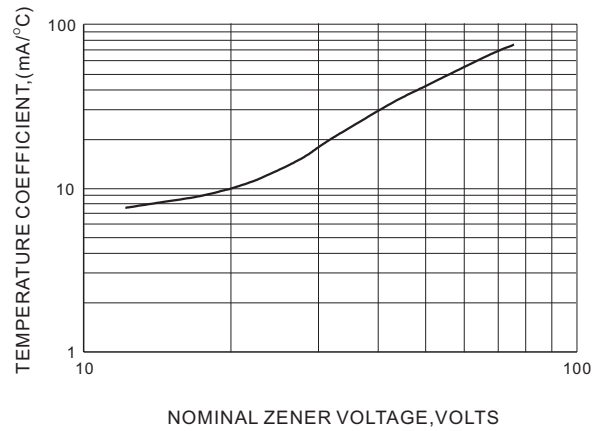


Fig.2 TEMPERATURE COEFFICIENTS

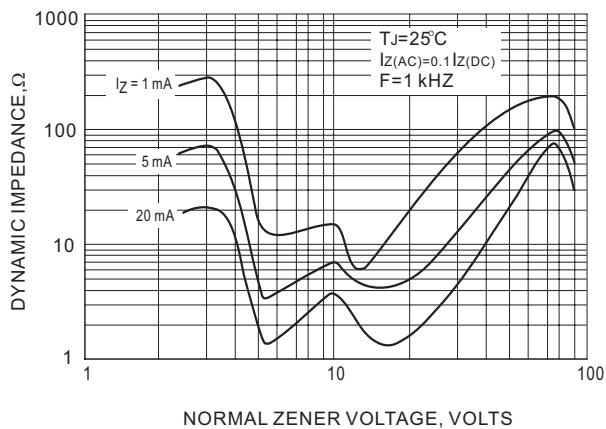


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

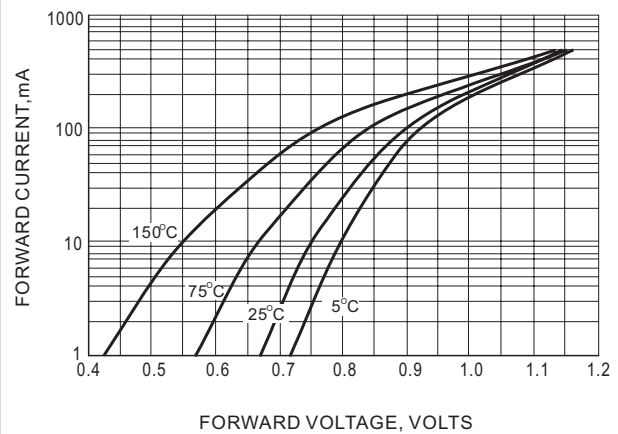


Fig.4 TYPICAL FORWARD VOLTAGE

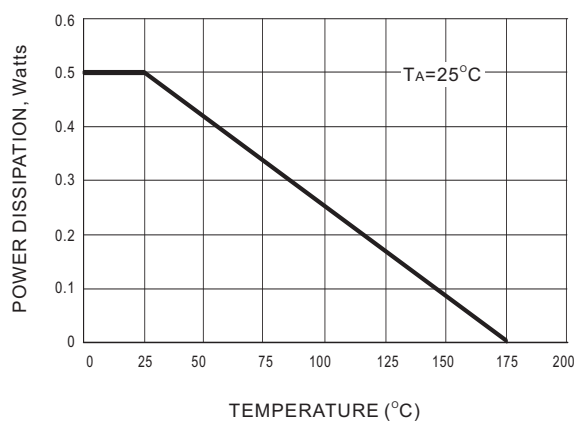


Fig.5 STEADY STATE POWER DERATING

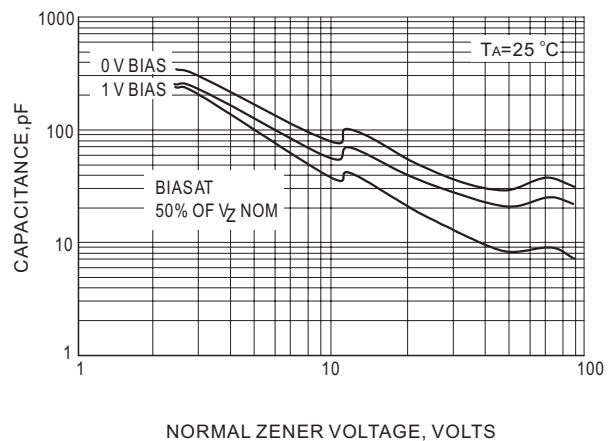


Fig.6 TYPICAL CAPACITANCE

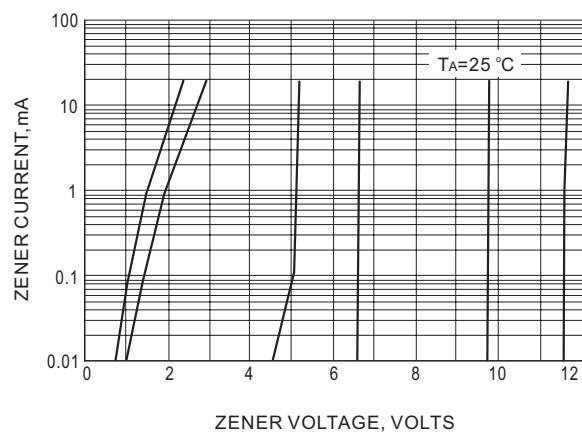


Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

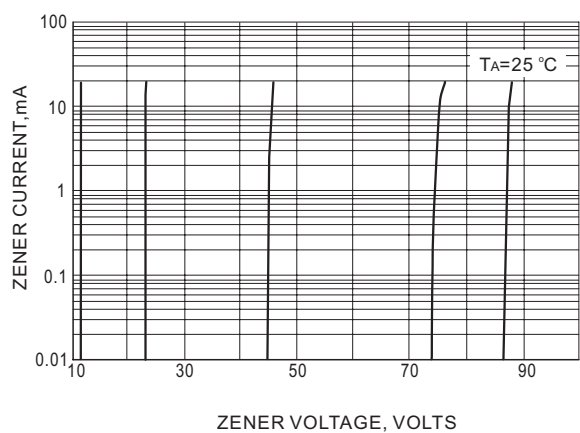


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

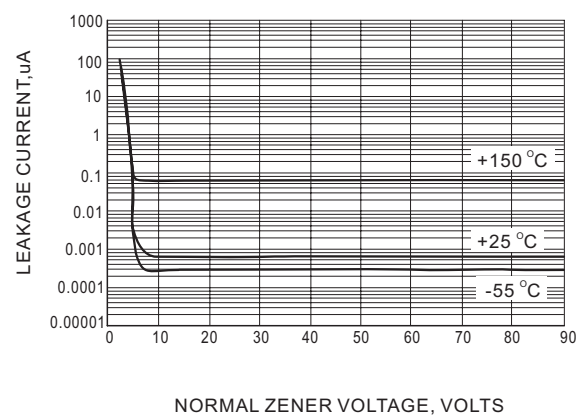


Fig.9 TYPICAL LEAKAGE CURRENT