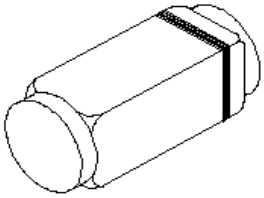
Continental Device India Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

SURFACE MOUNT SILICON ZENER DIODES

BZT55C 3V3 to 68V

QUADRO MELF (LS-34)



Polarity: Cathode is indicated by a band

Voltage Stabilization Applications

ABSOLUTE MAXIMUM RATINGS (T_j=25ºC)

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation ($R_{th\ (j-a)} \leq$ 300K/W)	P_D	500	mW
Z-Current	I_Z	P_D/V_Z	mA
Maximum Forward Voltage @ $I_{F=}$ 200mA	V_F	1.5	V
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	- 65 to +175	°C

THERMAL RESISTANCE

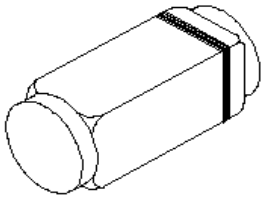
Junction to Ambient in Free Air	*$R_{th\ (j-a)}$	500	K/W

*** On PC Board 50mm x 50mm x 1.6mm**

ELECTRICAL CHARACTERISTICS (T_j=25°C unless specified otherwise) V_F @ 200mA <1.5V

Device #	Zener Voltage		Zener Impedance				Reverse Leakage Current			TK_{VZ}
	*V_Z @ I_{ZT}		Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ 25ºC	I_R @ 150ºC	V_R	
	(V)		(W)	(mA)	(W)	(mA)	(mA)	(mA)	(V)	%/K
	min	max	max		max		max	max		
BZT55C 3V3	3.10	3.50	90	5.0	600	1.0	2.0	40	1.0	- 0.08 to -0.05
BZT55C 3V6	3.40	3.80	90	5.0	600	1.0	2.0	40	1.0	- 0.08 to -0.05
BZT55C 3V9	3.70	4.10	90	5.0	600	1.0	2.0	40	1.0	- 0.08 to -0.05
BZT55C 4V3	4.00	4.60	90	5.0	600	1.0	1.0	20	1.0	- 0.06 to -0.03
BZT55C 4V7	4.40	5.00	80	5.0	600	1.0	0.5	10	1.0	- 0.05 to +0.02
BZT55C 5V1	4.80	5.40	60	5.0	550	1.0	0.1	2.0	1.0	- 0.02 to +0.02
BZT55C 5V6	5.20	6.00	40	5.0	450	1.0	0.1	2.0	1.0	0.05 to +0.05
BZT55C 6V2	5.80	6.60	10	5.0	200	1.0	0.1	2.0	2.0	0.03 to 0.06
BZT55C 6V8	6.40	7.20	8	5.0	150	1.0	0.1	2.0	3.0	0.03 to 0.07
BZT55C 7V5	7.00	7.90	7	5.0	50	1.0	0.1	2.0	5.0	0.03 to 0.07
BZT55C 8V2	7.70	8.70	7	5.0	50	1.0	0.1	2.0	6.2	0.03 to 0.08
BZT55C 9V1	8.50	9.60	10	5.0	50	1.0	0.1	2.0	6.8	0.03 to 0.09
BZT55C 10	9.40	10.60	15	5.0	70	1.0	0.1	2.0	7.5	0.03 to 0.10
BZT55C 11	10.40	11.60	20	5.0	70	1.0	0.1	2.0	8.2	0.03 to 0.11
BZT55C 12	11.40	12.70	20	5.0	90	1.0	0.1	2.0	9.1	0.03 to 0.11
BZT55C 13	12.40	14.10	26	5.0	110	1.0	0.1	2.0	10	0.03 to 0.11
BZT55C 15	13.80	15.60	30	5.0	110	1.0	0.1	2.0	11	0.03 to 0.11

***$T_P/T \leq$100ms**



QUADRO MELF
(LS-34)

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise) **V_F @ 200mA <1.5V**

Device #	Zener Voltage		Zener Impedance				Reverse Leakage Current			TK_{VZ}
	*V_Z @ I_{ZT}		Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ 25ºC	I_R @ 150ºC	V_R	
	(V)		(Ω)	(mA)	(Ω)	(mA)	(µA)	(µA)	(V)	%/K
	min	max	max		max		max	max		
BZT55C 16	15.30	17.10	40	5.0	170	1.0	0.1	2.0	12	0.03 to 0.11
BZT55C 18	16.80	19.10	50	5.0	170	1.0	0.1	2.0	13	0.03 to 0.11
BZT55C 20	18.80	21.20	55	5.0	220	1.0	0.1	2.0	15	0.03 to 0.11
BZT55C 22	20.80	23.30	55	5.0	220	1.0	0.1	2.0	16	0.04 to 0.12
BZT55C 24	22.80	25.60	80	5.0	220	1.0	0.1	2.0	18	0.04 to 0.12
BZT55C 27	25.10	28.90	80	5.0	220	1.0	0.1	2.0	20	0.04 to 0.12
BZT55C 30	28.00	32.00	80	5.0	220	1.0	0.1	2.0	22	0.04 to 0.12
BZT55C 33	31.00	35.00	80	5.0	220	1.0	0.1	2.0	24	0.04 to 0.12
BZT55C 36	34.00	38.00	80	5.0	220	1.0	0.1	2.0	27	0.04 to 0.12
BZT55C 39	37.00	41.00	90	2.5	500	0.5	0.1	5.0	30	0.04 to 0.12
BZT55C 43	40.00	46.00	90	2.5	600	0.5	0.1	5.0	33	0.04 to 0.12
BZT55C 47	44.00	50.00	110	2.5	700	0.5	0.1	5.0	36	0.04 to 0.12
BZT55C 51	48.00	54.00	125	2.5	700	0.5	0.1	10	39	0.04 to 0.12
BZT55C 56	52.00	60.00	135	2.5	1000	0.5	0.1	10	43	0.04 to 0.12
BZT55C 62	58.00	66.00	150	2.5	1000	0.5	0.1	10	47	0.04 to 0.12
BZT55C 68	64.00	72.00	200	2.5	1000	0.5	0.1	10	51	0.04 to 0.12

***T_P/T≤100ms**

BZT55C3V9_68V Rev080405E

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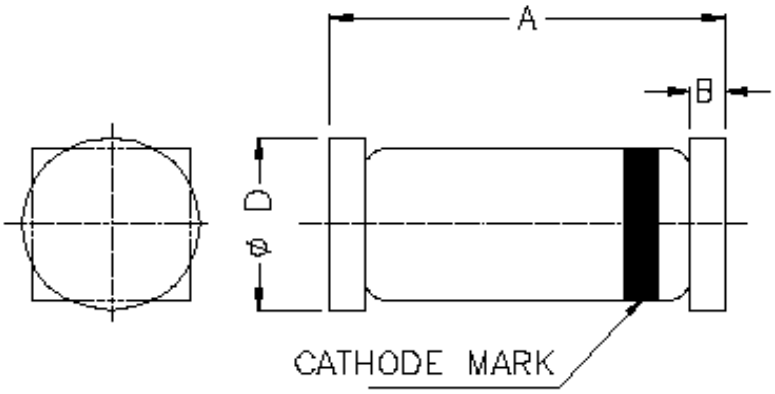
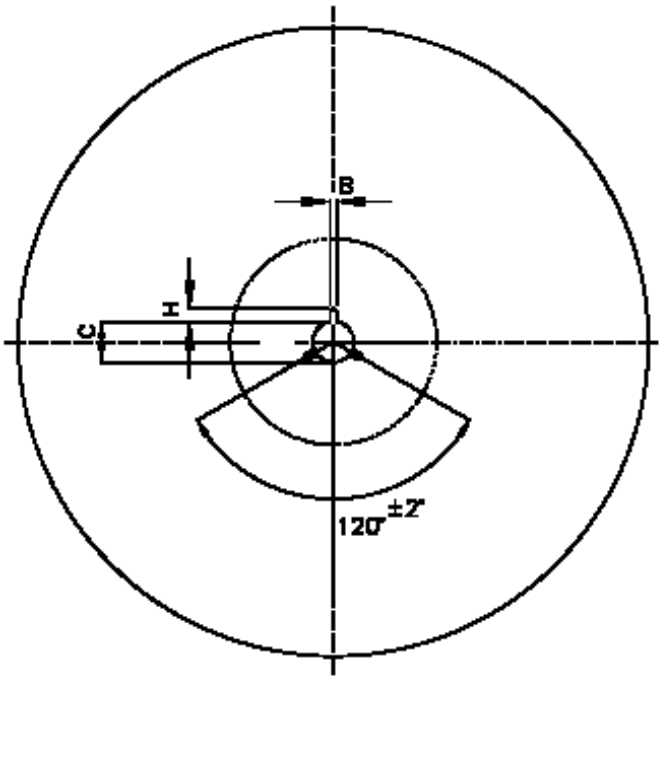
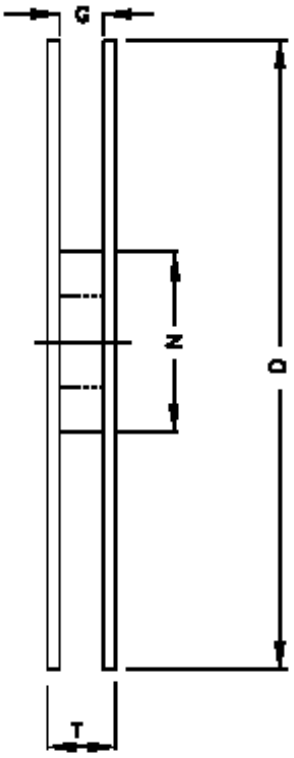


DIM	MIN	MAX
A	3.40	3.60
B	0.29	0.31
D	1.40	1.50

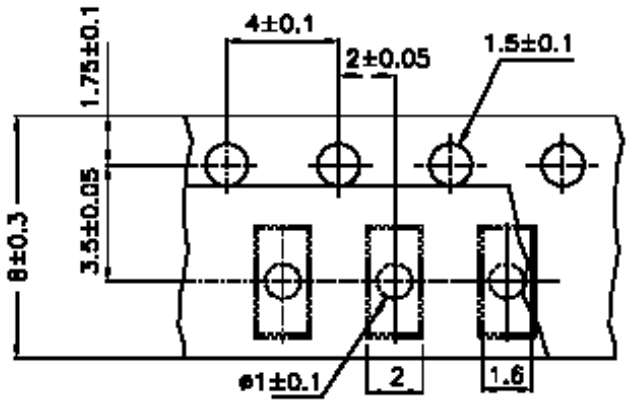
ALL DIMENSIONS ARE IN mm

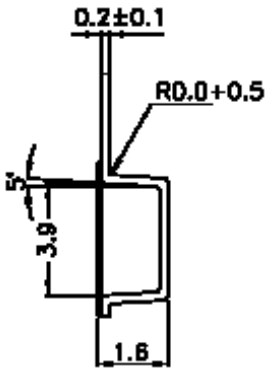




B	2 ±0.5
C	13 ±0.5
D	178±2
G	8.4±1.5
H	4±0.5
N	60
T	<14.9

All dimensions are in mm
2500 Pcs/Reel





Accumulated pitch tolerance is ±0.2 mm over !0 pitches
8-mm CRRIER TAPE FOR QUADRO MELF - LS34 PACKAGE
ALL DIMENSIONS ARE IN mm

Disclaimer

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