Ceramic Leadless Chip Carrier Packages (CLCC)



J28.A MIL-STD-1835 CQCC1-N28 (C-4) 28 PAD CERAMIC LEADLESS CHIP CARRIER PACKAGE

SYMBOL	INCHES		MILLIMETERS		
	MIN	MAX	MIN	MAX	NOTES
А	0.060	0.100	1.52	2.54	6, 7
A1	0.050	0.088	1.27	2.23	-
В	-	-	-	-	-
B1	0.022	0.028	0.56	0.71	2, 4
B2	0.072 REF		1.83 REF		-
B3	0.006	0.022	0.15	0.56	-
D	0.442	0.460	11.23	11.68	-
D1	0.300 BSC		7.62 BSC		-
D2	0.150 BSC		3.81 BSC		-
D3	-	0.460	-	11.68	2
E	0.442	0.460	11.23	11.68	-
E1	0.300 BSC		7.62 BSC		-
E2	0.150 BSC		3.81 BSC		-
E3	-	0.460	-	11.68	2
е	0.050 BSC		1.27 BSC		-
e1	0.015	-	0.38	-	2
h	0.040 REF		1.02 REF		5
j	0.020 REF		0.51 REF		5
L	0.045	0.055	1.14	1.40	-
L1	0.045	0.055	1.14	1.40	-
L2	0.075	0.095	1.90	2.41	-
L3	0.003	0.015	0.08	0.038	-
ND	7		7		3
NE	7		7		3
N	28		28		3

NOTES:

- 1. Metallized castellations shall be connected to plane 1 terminals and extend toward plane 2 across at least two layers of ceramic or completely across all of the ceramic layers to make electrical connection with the optional plane 2 terminals.
- 2. Unless otherwise specified, a minimum clearance of 0.015 inch (0.38mm) shall be maintained between all metallized features (e.g., lid, castellations, terminals, thermal pads, etc.)
- Symbol "N" is the maximum number of terminals. Symbols "ND" and "NE" are the number of terminals along the sides of length "D" and "E", respectively.
- 4. The required plane 1 terminals and optional plane 2 terminals (if used) shall be electrically connected.
- 5. The corner shape (square, notch, radius, etc.) may vary at the manufacturer's option, from that shown on the drawing.
- 6. Chip carriers shall be constructed of a minimum of two ceramic layers.
- 7. Dimension "A" controls the overall package thickness. The maximum "A" dimension is package height before being solder dipped.
- 8. Dimensioning and tolerancing per ANSI Y14.5M-1982.
- 9. Controlling dimension: INCH.