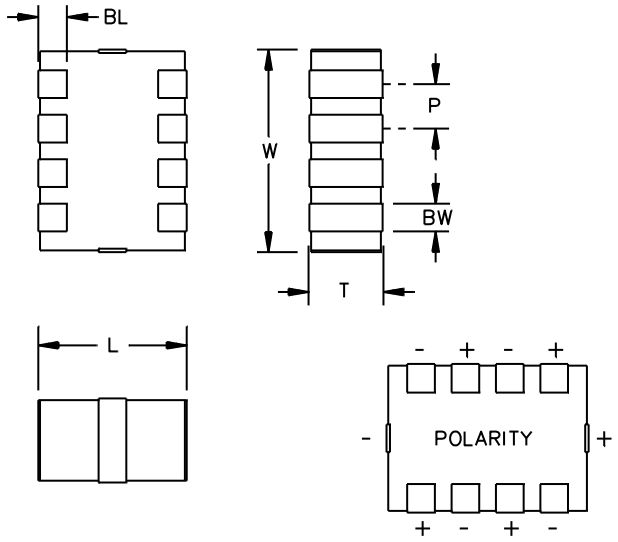
INCH-POUND
MIL-PRF-32535/11
20 December 2017

PERFORMANCE SPECIFICATION SHEET

CAPACITOR, INTERDIGITATED CHIP, FIXED, CERAMIC DIELECTRIC (GENERAL PURPOSE), HIGH RELIABILITY AND STANDARD RELIABILITY, SIZE 0306

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-PRF-32535.



Dimensions					
W ± .008	L ± .006	T Max.	BW ± .004	BL ± .004	P ± .002
.063	.032	.022	.010	.008	.015

inches	mm
.002	0.05
.004	0.10
.006	0.15
.008	0.20
.010	0.25
.015	0.38
.022	0.56
.032	0.81
.063	1.60

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Dimensions and tolerances are for terminated chips.

FIGURE 1. Size 0306 interdigitated capacitors.

CAUTION: Due to their unique designs, the capacitors specified herein take significant exceptions to the general requirements of MIL-PRF-32535 for dissipation factor, life, and temperature humidity bias. Users are cautioned to evaluate these requirements for their particular application.

INTENDED USE: The capacitors specified herein are intended for use in integrated circuits or microcircuits.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Capacitance value: See table I.

Capacitance tolerance: M = ±20 percent.

Voltage-temperature limit or temperature characteristic (VTL/TC): X7S as specified in MIL-PRF-32535.

Rated voltage (V_{dc}): V = 4.

Operating temperature range: -55°C to +125°C.

Termination finish: Z as specified in MIL-PRF-32535.

Electrode: B as specified in MIL-PRF-32535.

Product level designator: Standard reliability – M and high reliability - T.

Dissipation factor: In accordance with MIL-PRF-32535, except the dissipation factor for capacitance values ≥ 1 µF shall be 10 percent, maximum.

Life: In accordance with MIL-PRF-32535, except the test voltage shall be 1.5 times the rated voltage (see table I).

Temperature humidity bias: In accordance with MIL-PRF-32535, except the duration for qualification shall be 264 hours, minimum.

Board flex: In accordance with MIL-PRF-32535, except the capacitor shall be soldered to the test board along the terminal sides. The end tabs shall not be soldered.

Shear stress: In accordance with MIL-PRF-32535, except the force shall be applied to the shorter end of the capacitor. The capacitor shall be soldered to the test board along the terminal sides. The end tabs shall not be soldered.

Destructive physical analysis: In accordance with MIL-PRF-32535. The termination porosity and accumulation of glass frit at the chip/termination surface shall not be rejectable.

Marking: Package marking only in accordance with MIL-PRF-32535.

TABLE I. Size 0306 interdigitated capacitor characteristics.

Part or Identifying Number (PIN) 1/	Capacitance (pF)	Capacitance tolerance	VTL/TC	Rated voltage (V_{dc})	Electrode material
M3253511E3V104MZ - B	100,000	M	X7S	4	B
M3253511E3V224MZ - B	220,000	M	X7S	4	B
M3253511E3V334MZ - B	330,000	M	X7S	4	B
M3253511E3V474MZ - B	470,000	M	X7S	4	B
M3253511E3V105MZ - B	1,000,000	M	X7S	4	B

1/ The complete PIN shall include an additional symbol to indicate the product level.

Custodians:
Army – CR
Navy - EC
Air Force – 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5910-2016-012)

Review activities:
Army - MI
Navy - AS, MC, OS, SH
Air Force - 19, 99
Other – MDA, NA

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.