

Export Control Regulations and ITAR Free

MIL-PRF-55681 CDR Styles

MULTILAYER CAPACITORS FOR MILITARY / AEROSPACE APPLICATIONS TEMEX CERAMICS NATO CODE : FAQY3

I. CONFORMANCE INSPECTION

Inspection of military product for delivery shall consist of main electrical parameters, according to MIL-STD-202 test methods, and group A inspection, as described in MIL-PRF-55681.

| Inspection | Sample Size | MIL-STD-202 | MIL-PRF-55681 | MIL |
|-----------------------------------|--------------|------------------|---|-----|
| Capacitance | 100% | Test Method 305A | | |
| Dissipation Factor | 100% | Test Method 306 | | |
| Insulation Resistance | 100% | Test Method 302 | | |
| Dielectric Withstanding Voltage | 100% | Test Method 301 | | |
| Insulation Resistance (+125 °C) | Column A (*) | Test Method 302 | 4.8.6 | |
| Visual and Mechanical Examination | Column B (*) | | 4.8.2 | |
| ESR (RF) | 6 units | | 4.8.8 / Appendix A (figures A-3 and A-4) | |
| Solderability | 13 units | Test Method 208H | 4.8.10 | |

Test Method 305A
Test Method 306
Test Method 302
Test Method 301

Capacitance test, go/no-go check, no measurement data
Dissipation Factor test, go/no-go check, no measurement data
Insulation Resistance test, go/no-go check, no measurement data
Dielectric Withstanding Voltage test, go/no-go check, no measurement data

(*)

See Sample Size Chart below

II. CAPACITOR CHARACTERISTICS

Equivalent mechanical configurations of CDR styles (high-frequency) as described in MIL-STD-55681/4 and 5 performance specification sheets.

| MIL-PRF-55681 Styles | Rated and Voltage Temperature Limits | Equivalent Part Number | Lead and Termination |
|----------------------|--------------------------------------|------------------------|----------------------|
| CDR11 / CDR12 | BG / BP | CHA / SHA | W |
| CDR13 / CDR14 | BG / BP | CHB / SHB | W |
| CDR21 | BG / BP | CHB : SHB | 1 |
| CDR22 | BG | CHB | 2 |
| CDR23 | BG | CHB | 6 |
| CDR24 | BG | CHB | 3 |
| CDR25 | BG | CHB | 7 |

NB: termination W is Solder Coated, Final.

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III. PART NUMBERING

III.1. MIL

| | | | | | | |
|---|-------------------------|---|---|---|---------------------|---------------------------------------|
| CDR14 | BG | 100 | E | J | S | R |
| | | | | | | |
| dimensions | temperature coefficient | capacitance | voltage code | tolerance code | termination code | failure rate level ⁽¹⁾ |
| established reliability, ceramic dielectric, fixed, chip capacitors | BG (POS.) BP (NP0) | the first two digits represent significant figures and the last digit specifies the number of zeros to follow. When fractional values of pF are required, the letter R shall be used to indicate the decimal point. | A=50V B=100V C=200V D=300V E=500V F=150V | A=±0.05pF B=±0.1pF C=±0.25pF D=±0.5pF F=±1% G=±2% J=±5% K=±10% | solder coated final | M=1% P=0,1% R=0,01% S=0,001% |

⁽¹⁾: established at 90% confidence, expressed per 1000 hours.

III.2. Temex Ceramics

| | | | | | | | |
|---|--------------------------|---|---|---|--------------|-------------------------|-------------------|
| 501 | CHB | 100 | J | W | L | TK192 | MIL |
| | | | | | | | |
| voltage | case size | capacitance | tolerance code | termination code | marking code | screening specification | screening options |
| 500=50V 101=100V 201=200V 301=300V 501=500V 151=150V | SHA CHA SHB CHB | the first two digits represent significant figures and the last digit specifies the number of zeros to follow. When fractional values of pF are required, the letter R shall be used to indicate the decimal point. | A=±0.05pF B=±0.1pF C=±0.25pF D=±0.5pF F=±1% G=±2% J=±5% K=±10% | W=CDR11 W=CDR12 W=CDR13 W=CDR14 1=CDR21 2=CDR22 6=CDR23 3=CDR24 7=CDR25 | | | |