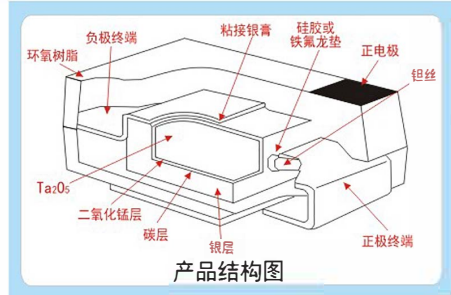


CAK55型 有失效率等级的片式导电聚合物钽固定电容器

★ 特征与用途 FEATURES AND APPLICATIONS

- ◆ 树脂模压封装、密封性好、片式、体积小、重量轻、有极性；
- ◆ 导电聚合物电解质、超低ESR、高频容量保持、储存稳定性好；
- ◆ 高可靠性、高安全性；
- ◆ 不燃烧、不爆炸、良性失效模式；
- ◆ 适用于通信、船舶等电子设备；
- ◆ 执行标准：GJB 2283A-2014、ZZR-Q/XEC 20072A-2015；
- ◆ 订货书写格式：CAK55-D-16V-100 μF-M-100只。



★ 主要技术性能 MAIN TECHNICAL PERFORMANCE

- ◆ 使用温度范围：-55℃~+125℃ (>85℃时施加降额电压使用)；
- ◆ 额定电压、降额电压：见表2；
- ◆ 电容量允许公差：K：±10%、M：±20%；
- ◆ 室温漏电流： $10 \leq 0.1 \times UR \times CR$ (μA) 或 0.5μA (取大者)；
- ◆ 损耗角正切：见表3；
- ◆ 等效串联电阻：见表3。
- ◆ 高低温特性：见表3；
- ◆ 外形及尺寸：见图1、表1。



★ 外观尺寸 SHAPE AND DIMENSIONS

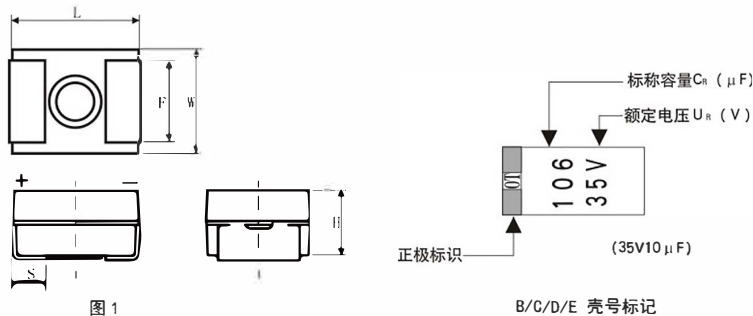


表1 电容器的外形尺寸

单位: mm

| 壳号 | EIA | L | W | H | F | S |
|----|---------|-----------|-----------|-----------|-----------|-----------|
| B | 3528-21 | 3.50±0.20 | 2.80±0.20 | 1.90±0.20 | 2.20±0.10 | 0.80±0.30 |
| C | 6032-28 | 6.00±0.30 | 3.20±0.30 | 2.50±0.30 | 2.20±0.10 | 1.30±0.30 |
| D | 7343-31 | 7.30±0.30 | 4.30±0.30 | 2.80±0.30 | 2.40±0.10 | 1.30±0.30 |
| E | 7343-43 | 7.30±0.30 | 4.30±0.30 | 4.00±0.30 | 2.40±0.10 | 1.30±0.30 |

表2 电容器的额定电压、降额电压

| 额定电压 U_R (V) | 4 | 6.3 | 10 | 16 | 20 | 25 | 35 | 50 |
|----------------|-----|-----|-----|----|------|------|------|------|
| 降额电压 U_C (V) | 2.7 | 4 | 6.7 | 10 | 13.3 | 16.7 | 23.3 | 33.3 |

表 3 钽电容器的规格特性

| CAK55 电容器的额定值及高低温稳定性参数 | | | | | | | | | | | | |
|------------------------|----|-------------------|------|-------|--------------|------|-------|-------------------|------|------|-------|----------------------------------|
| 标称 电容量 μF | 壳号 | 直流漏电流 (max) μA | | | 电容量变化范围 % | | | 损耗角正切值 (max) % | | | | ESR/Ω (max) 25℃, 100KHz |
| | | +25℃ | +85℃ | +125℃ | -55℃ | +85℃ | +125℃ | -55℃ | +25℃ | +85℃ | +125℃ | |
| 额定电压 4.0V | | | | | | | | | | | | |
| 10 | B | 4.0 | 32 | 40 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.12 |
| 15 | B | 6.0 | 48 | 60 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 22 | B | 8.8 | 70 | 88 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 22 | C | 8.8 | 70 | 88 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 33 | D | 13.2 | 106 | 132 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 47 | D | 18.8 | 150 | 188 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 68 | D | 27.2 | 218 | 272 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 75 | D | 30.0 | 240 | 300 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 100 | D | 40.0 | 320 | 400 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 150 | E | 60.0 | 480 | 600 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 220 | E | 88.0 | 704 | 880 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 330 | E | 132.0 | 1056 | 1320 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.04 |
| 470 | E | 188.0 | 1504 | 1880 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.04 |
| 额定电压 6.3V | | | | | | | | | | | | |
| 6.8 | B | 4.3 | 34 | 43 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.12 |
| 10 | B | 6.3 | 50 | 63 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.12 |
| 15 | B | 9.5 | 76 | 95 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.12 |
| 22 | B | 13.9 | 111 | 139 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 33 | C | 20.8 | 166 | 208 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 33 | D | 20.8 | 166 | 208 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 47 | C | 29.6 | 237 | 296 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 47 | D | 29.6 | 237 | 296 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 68 | D | 42.8 | 343 | 428 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 75 | D | 47.3 | 378 | 473 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 100 | D | 63.0 | 504 | 630 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 150 | D | 94.5 | 756 | 945 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.06 |
| 150 | E | 94.5 | 756 | 945 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.06 |
| 220 | D | 138.6 | 1109 | 1386 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 220 | E | 138.6 | 1109 | 1386 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 330 | E | 207.9 | 1663 | 2079 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.04 |
| 额定电压 10V | | | | | | | | | | | | |
| 4.7 | B | 4.7 | 38 | 47 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 6.8 | B | 6.8 | 54 | 68 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 10 | B | 10.0 | 80 | 100 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 15 | C | 15.0 | 120 | 150 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 22 | C | 22.0 | 176 | 220 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |

CAK55 电容器的额定值及高低温稳定性参数

| 标称 电容量 μF | 壳号 | 直流漏电流 (max) μA | | | 电容量变化范围 % | | | 损耗角正切值 (max) % | | | ESR/Ω (max) 25℃, 100KHz | |
|-----------------|----|-------------------|------|-------|--------------|------|-------|-------------------|------|------|----------------------------------|-------|
| | | +25℃ | +85℃ | +125℃ | -55℃ | +85℃ | +125℃ | -55℃ | +25℃ | +85℃ | | +125℃ |
| 额定电压 10V | | | | | | | | | | | | |
| 33 | C | 33.0 | 264 | 330 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 33 | D | 33.0 | 264 | 330 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 47 | D | 47.0 | 376 | 470 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 68 | D | 68.0 | 544 | 680 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 75 | D | 68.0 | 544 | 680 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 100 | D | 100.0 | 800 | 1000 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 100 | E | 100.0 | 800 | 1000 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 150 | D | 150.0 | 1200 | 1500 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 150 | E | 150.0 | 1200 | 1500 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 220 | E | 220.0 | 1760 | 2200 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 330 | E | 330.0 | 2640 | 3300 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 额定电压 16V | | | | | | | | | | | | |
| 2.2 | B | 3.5 | 28 | 35 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.25 |
| 3.3 | B | 5.3 | 42 | 53 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.25 |
| 4.7 | B | 7.5 | 60 | 75 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 6.8 | C | 10.9 | 87 | 109 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 10 | C | 16.0 | 128 | 160 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 15 | C | 24.0 | 192 | 240 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 22 | C | 35.2 | 282 | 352 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 33 | D | 52.8 | 422 | 528 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 47 | D | 75.2 | 602 | 752 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 68 | D | 108.8 | 870 | 1088 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 75 | D | 120.0 | 960 | 1200 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 100 | D | 160.0 | 1280 | 1600 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 100 | E | 160.0 | 1280 | 1600 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 150 | D | 240.0 | 1920 | 2400 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 150 | E | 240.0 | 1920 | 2400 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 220 | E | 352.0 | 2816 | 3520 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 330 | E | 528.0 | 4224 | 5280 | ±10 | ±20 | ±30 | 12 | 12 | 12 | 15 | 0.05 |
| 额定电压 20V | | | | | | | | | | | | |
| 1.5 | B | 3.0 | 24 | 30 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.25 |
| 2.2 | B | 4.4 | 35 | 44 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 3.3 | C | 6.6 | 53 | 66 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 4.7 | D | 9.4 | 75 | 94 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 6.8 | D | 13.6 | 109 | 136 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 10 | D | 20.0 | 160 | 200 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 15 | D | 30.0 | 240 | 300 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |

CAK55 电容器的额定值及高低温稳定性参数

| 标称 电容量 μF | 壳号 | 直流漏电流 (max) μA | | | 电容量变化范围 % | | | 损耗角正切值 (max) % | | | | ESR/Ω (max) 25°C, 100KHz |
|-----------------|----|-------------------|-------|--------|--------------|-------|--------|-------------------|-------|-------|--------|-----------------------------------|
| | | +25°C | +85°C | +125°C | -55°C | +85°C | +125°C | -55°C | +25°C | +85°C | +125°C | |
| 额定电压 20V | | | | | | | | | | | | |
| 22 | D | 44.0 | 352 | 440 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 33 | D | 66.0 | 528 | 660 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.06 |
| 47 | E | 94.0 | 752 | 940 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.05 |
| 额定电压 25V | | | | | | | | | | | | |
| 1 | B | 2.5 | 20 | 25 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.25 |
| 1.5 | B | 3.8 | 30 | 38 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.25 |
| 2.2 | B | 5.5 | 44 | 55 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 3.3 | C | 8.3 | 66 | 83 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 4.7 | C | 11.8 | 94 | 118 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 4.7 | D | 11.8 | 94 | 118 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 6.8 | C | 17.0 | 136 | 170 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 6.8 | D | 17.0 | 136 | 170 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.10 |
| 10 | D | 25.0 | 200 | 250 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 15 | D | 37.5 | 300 | 375 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 22 | D | 55.0 | 440 | 550 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 33 | D | 82.5 | 660 | 825 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 33 | E | 82.5 | 660 | 825 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 47 | E | 117.5 | 940 | 1175 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.07 |
| 额定电压 35V | | | | | | | | | | | | |
| 1 | B | 3.5 | 28 | 35 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.35 |
| 2.2 | C | 7.7 | 62 | 77 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 3.3 | D | 11.6 | 92 | 116 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 4.7 | D | 16.5 | 132 | 165 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 6.8 | D | 23.8 | 190 | 238 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |
| 10 | D | 35.0 | 280 | 350 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 10 | E | 35.0 | 280 | 350 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.09 |
| 15 | D | 52.5 | 420 | 525 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.08 |
| 15 | E | 52.5 | 420 | 525 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.08 |
| 22 | E | 77.0 | 616 | 770 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.08 |
| 33 | E | 115.5 | 924 | 1155 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.08 |
| 额定电压 50V | | | | | | | | | | | | |
| 2.2 | B | 11.0 | 88 | 110 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.40 |
| 2.2 | C | 11.0 | 88 | 110 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.40 |
| 3.3 | C | 16.5 | 132 | 165 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.40 |
| 3.3 | D | 16.5 | 132 | 165 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.40 |
| 4.7 | D | 23.5 | 188 | 235 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.30 |
| 6.8 | D | 34.0 | 272 | 340 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.25 |

CAK55 电容器的额定值及高低温稳定性参数

| 标称 电容量 μF | 壳号 | 直流漏电流 (max) μA | | | 电容量变化范围 % | | | 损耗角正切值 (max) % | | | | ESR/Ω (max) 25°C, 100KHz |
|-----------------|----|-------------------|-------|--------|--------------|-------|--------|-------------------|-------|-------|--------|-----------------------------------|
| | | +25°C | +85°C | +125°C | -55°C | +85°C | +125°C | -55°C | +25°C | +85°C | +125°C | |
| 额定电压 50V | | | | | | | | | | | | |
| 10 | D | 50.0 | 400 | 500 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 10 | E | 50.0 | 400 | 500 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.20 |
| 15 | D | 75.0 | 600 | 750 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.18 |
| 15 | E | 75.0 | 600 | 750 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.18 |
| 22 | E | 110.0 | 880 | 1100 | ±10 | ±20 | ±30 | 10 | 10 | 12 | 15 | 0.15 |

注：要了解以上规格以外的产品，请联系顺络迅达电子。

