# CAPACITOR SERIES TABLE, CONTENTS

## ■CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

| Series | | Page | Features | Standard Type | Miniaturization Low profile type | Low impedance | Long life | High reliability | Terminal type | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface Mount Type | PXG (Upgrade!) | 28 | Super low ESR, high ripple current, downsized | | ● | ● | | | SMD | 105℃ 1,000 to 2,000 hours | 16 to 25 |
| | PXK | 30 | Super low ESR, high ripple current, downsized | | ● | ● | | | SMD | 105℃ 1,000 to 2,000 hours | 2.5 to 16 |
| | PXS | 32 | Long life, super low ESR, high ripple current | | ● | ● | ● | | SMD | 105℃ 5,000 hours | 4 to 16 |
| | PXF | 34 | Super low ESR, high ripple current | | ● | ● | | | SMD | 105℃ 1,000 to 2,000 hours | 2 to 10 |
| | PXE | 36 | Super low ESR, high ripple current | | ● | ● | | | SMD | 105℃ 2,000 hours | 2.5 to 16 |
| | PXA | 38 | Super low ESR, high ripple current | ● | ● | ● | | | SMD | 105℃ 1,000 to 2,000 hours | 2.5 to 25 |
| | PXD | 40 | 125℃, super low ESR, high ripple current | | ● | ● | | ● | SMD | 125℃ 2,000 hours | 2.5 to 10 |
| | PXH | 42 | 125℃, super low ESR, high ripple current | | ● | ● | | ● | SMD | 125℃ 1,000 hours | 2.5 to 20 |
| Radial Lead Type | PSG (Upgrade!) | 44 | Long life, super low ESR, high ripple current | | ● | ● | ● | | Radial | 105℃ 2,000 to 5,000 hours | 16 to 25 |
| | PSK (Upgrade!) | 46 | Long life, super low ESR, high ripple current | | ● | ● | ● | | Radial | 105℃ 5,000 hours | 2.5 to 6.3 |
| | PSF | 48 | Long life, super low ESR, high ripple current | | ● | ● | ● | | Radial | 105℃ 5,000 hours | 2 to 16 |
| | PSE | 50 | Long life, super low ESR, high ripple current | | ● | ● | ● | | Radial | 105℃ 5,000 hours | 2.5 to 6.3 |
| | PSC | 52 | Super low ESR, high ripple current | | ● | ● | | | Radial | 105℃ 2,000 hours | 2.5 to 16 |
| | PSA | 54 | Super low ESR, high ripple current | ● | ● | ● | | | Radial | 105℃ 2,000 hours | 2.5 to 16 |
| | PS | 56 | Super low ESR, high ripple current | ● | ● | ● | | | Radial | 105℃ 2,000 hours | 2.5 to 35 |

## ■CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

| Series | | Page | Features | Standard Type | Miniaturization Low profile type | Low impedance | Long life | High reliability | Terminal type | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface Mount Type | HXA (New!) | – | 125℃, super low ESR, high ripple current (Ask Engineering Bulletin No.830 in detail) | ● | | ● | | ● | SMD | 125℃ 4,000 hours +R | 25 to 35 |
| | HXB (New!) | – | Super low ESR, high ripple current (Ask Engineering Bulletin No.831 in detail) | ● | | ● | | ● | SMD | 105℃ 5,000 hours +R | 25 to 35 |

## ■ALUMINUM ELECTROLYTIC CAPACITORS

| Series | | | Page | Features | Standard Type | Miniaturization Low profile type | Low impedance | Long life | High reliability | Terminal type | Endurance (+R=With ripple) | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface Mount Type | General Purpose | MVA | 68 | 85℃,standard | ● | ● | | | | SMD | 85℃ 2,000 hours | 4 to 450 |
| | | MVE | 70 | 105℃, standard | ● | ● | | | | SMD | 105℃ 1,000 to 2,000 hours | 6.3 to 450 |
| | Low Impedance | MZJ | 72 | Super low ESR | | ● | ● | | | SMD | 105℃ 2,000 hours | 6.3 to 35 |
| | | MZA (Upgrade!) | 74 | Super low impedance | | ● | ● | ● | ● | SMD | 105℃ 2,000 to 5,000 hours | 6.3 to 100 |
| | | MVY | 76 | Low impedance, standard, Case size$\phi$4 to 18mm | ● | | ● | | ● | SMD | 105℃ 1,000 to 5,000 hours | 6.3 to 100 |
| | | MZF | 78 | 10,000 hours, Long life, low impedance | | | ● | ● | ● | SMD | 105℃ 10,000 hours | 6.3 to 50 |
| | | MZE | 80 | 7,000/8,000 hours, Long life, low impedance | | | ● | ● | ● | SMD | 105℃ 7,000 to 8,000 hours | 6.3 to 50 |
| | | MZK | 82 | 5,000 hours, Long life, low impedance | | ● | ● | ● | ● | SMD | 105℃ 5,000 hours | 6.3 to 35 |
| | | MLA | 84 | 3,000 hours, Long life, low impedance | | | ● | ● | ● | SMD | 105℃ 3,000 hours | 6.3 to 50 |
| | Long Life | MLF | 86 | 10,000 hours, Long life | | | | ● | ● | SMD | 105℃ 10,000 hours | 6.3 to 50 |
| | | MLE | 88 | 7,000/8,000 hours, Long life | | | | ● | ● | SMD | 105℃ 7,000 to 8,000 hours | 6.3 to 50 |
| | | MLK | 90 | 5,000 hours, Long life | | ● | | ● | ● | SMD | 105℃ 5,000 hours | 6.3 to 35 |
| | | MVL | 91 | 3,000/5,000 hours, Long life | | | | ● | ● | SMD | 105℃ 3,000 to 5,000 hours | 6.3 to 50 |
| | | MVJ | 93 | 2,000 hours, Long life | | | | ● | ● | SMD | 105℃ 2,000 hours | 6.3 to 50 |
| | Special Application | MVH | 94 | 125℃, Case size$\phi$6.3 to 18mm | ● | | | ● | ● | SMD | 125℃ 1,000 to 5,000 hours | 10 to 450 |
| | | MHL (New!) | 96 | 125℃, Downsized | | | | ● | ● | SMD | 125℃ 2,000 to 4,000 hours | 10 to 35 |
| | | MHB (Upgrade!) | 98 | 125℃, Specified ESR after endurance | | | | | ● | SMD | 125℃ 1,500 to 3,000 hours | 10 to 100 |
| | | MHJ (Upgrade!) | 100 | 125℃, Specified ESR after endurance | | | | | ● | SMD | 125℃ 2,000 to 3,000 hours | 10 to 35 |
| | | MHK (New!) | – | 125℃, Specified ESR after endurance (Ask Engineering Bulletin No.834 in detail) | | | | | ● | SMD | 125℃ 2,000 hours | 35 |
| | | MKB | 102 | Specified ESR at low temperature | | | | | ● | SMD | 105℃ 3,000 hours | 400 |
| | | MV-BP | 103 | Bi-polar | | ● | | | | SMD | 85℃ 2,000 hours | 6.3 to 50 |
| | | MVK-BP | 104 | Bi-polar | | ● | | | | SMD | 105℃ 1,000 hours | 6.3 to 50 |

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# CAPACITOR SERIES TABLE, CONTENTS

## ■ALUMINUM ELECTROLYTIC CAPACITORS

| Series | | | Page | Features | Standard Type | Miniaturization Low profile type | Low impedance | Long life | High reliability | Terminal type | Endurance (+R=With ripple) | Rated voltage range ($V_{dc}$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Radial Lead Type | Low Profile | SRM | 109 | 85℃, 5mm height, downsized | | ● | | | | Radial | 85℃ 1,000 hours | 4 to 50 |
| | | SRE | 110 | 85℃, 5mm height, standard | ● | ● | | | | Radial | 85℃ 1,000 hours | 4 to 50 |
| | | KRE | 111 | 105℃, 5mm height, standard | ● | ● | | | | Radial | 105℃ 1,000 hours | 6.3 to 50 |
| | | SRA | 112 | 85℃, 7mm height, standard | ● | ● | | | | Radial | 85℃ 1,000 hours | 4 to 63 |
| | | KMA | 113 | 105℃, 7mm height, standard | ● | ● | | | | Radial | 105℃ 1,000 hours | 4 to 63 |
| | | SRG | 115 | φ4×7 to φ18×25mm, low profile | | ● | | | | Radial | 85℃ 1,000 to 2,000 hours | 4 to 50 |
| | | KRG | 117 | φ4×7 to φ18×25mm, low profile | | ● | | | | Radial | 105℃ 1,000 hours | 6.3 to 50 |
| | General Purpose | SMQ | 119 | 85℃, Downsized | | ● | | | | Radial | 85℃ 2,000 hours | 6.3 to 450 |
| | | KMQ | 122 | 105℃, Downsized | | ● | | | | Radial | 105℃ 1,000 to 2,000 hours +R | 6.3 to 450 |
| | | SMG | 125 | 85℃, standard | ● | ● | | | | Radial | 85℃ 2,000 hours | 6.3 to 450 |
| | | KMG | 129 | 105℃, standard | ● | ● | | | | Radial | 105℃ 1,000 to 2,000 hours +R | 6.3 to 450 |
| | | SME-BP | 132 | Bi-polar, downsized | | ● | | | | Radial | 85℃ 2,000 hours | 6.3 to 100 |
| | | KME-BP | 134 | Bi-polar, downsized | | ● | | | | Radial | 105℃ 1,000 hours | 6.3 to 100 |
| | High Frequency Use | KZN (New!) | 136 | Long life, low impedance | | ● | ● | ● | | Radial | 105℃ 6,000 to 10,000 hours +R | 6.3 to 100 |
| | | KZM | 139 | Long life, super low impedance | | ● | ● | ● | | Radial | 105℃ 6,000 to 10,000 hours +R | 6.3 to 50 |
| | | KZH | 142 | Super low impedance, downsized | | ● | ● | ● | | Radial | 105℃ 5,000 to 6,000 hours +R | 6.3 to 35 |
| | | KZE | 144 | Low impedance, downsized | | ● | ● | ● | | Radial | 105℃ 1,000 to 5,000 hours +R | 6.3 to 100 |
| | | KYB (New!) | 147 | Low impedance, downsized | | ● | ● | ● | | Radial | 105℃ 4,000 to 10,000 hours +R | 6.3 to 100 |
| | | KYA | 150 | Low impedance, downsized | | ● | ● | ● | | Radial | 105℃ 4,000 to 10,000 hours +R | 6.3 to 100 |
| | | KY | 153 | Low impedance, standard | ● | | ● | ● | | Radial | 105℃ 4,000 to 10,000 hours +R | 6.3 to 100 |
| | | LZA (Upgrade!) | 156 | Low impedance, downsized | | ● | ● | ● | ● | Radial | 105℃ 4,000 to 7,000 hours +R | 6.3 to 35 |
| | | LXZ | 158 | Low impedance, downsized | ● | ● | ● | ● | ● | Radial | 105℃ 2,000 to 8,000 hours +R | 6.3 to 63 |
| | | LXY | 161 | Low impedance | | | ● | ● | ● | Radial | 105℃ 2,000 to 8,000 hours +R | 10 to 63 |
| | | LXV | 163 | Low impedance | | | ● | ● | ● | Radial | 105℃ 2,000 to 5,000 hours +R | 6.3 to 100 |
| Radial Lead Type | High Reliability | KXJ (Upgrade!) | 166 | Long life, downsized, for input filtering | | ● | | ● | | Radial | 105℃ 8,000 to 12,000 hours +R | 160 to 500 |
| | | KXG | 170 | Long life, downsized, for input filtering | ● | ● | | ● | | Radial | 105℃ 8,000 to 10,000 hours +R | 160 to 450 |
| | | SMH | – | For input filtering, φ20×20 to φ22×50mm (Ask Engineering Bulletin No.808 in detail) | | ● | | | | Radial | 85℃ 2,000 hours +R | 160 to 450 |
| | | KMH | – | For input filtering, φ20×20 to φ22×50mm (Ask Engineering Bulletin No.810 in detail) | | ● | | | | Radial | 105℃ 2,000 hours +R | 160 to 450 |
| | | KHF (New!) | – | Noise suppression, low ESR (Ask Engineering Bulletin No.835 in detail) | | ● | | | | Radial | 105℃ 2,000 hours +R | 400 & 420 |
| | | KHE | 172 | Low profile, for input filtering | | ● | | | | Radial | 105℃ 2,000 hours +R | 400 to 450 |
| | | PAG | 174 | Low profile, for input filtering | | ● | | | | Radial | 105℃ 2,000 hours +R | 200 to 450 |
| | | KLJ (Upgrade!) | 176 | No sparks with DC overvoltage, downsized | | ● | | | ● | Radial | 105℃ 2,000 hours +R | 200 to 450 |
| | | KLG | 178 | No sparks with DC overvoltage | | | | | ● | Radial | 105℃ 2,000 hours +R | 200 & 400 |
| | | KXE (New!) | 180 | Long life, downsized, for input filtering | | ● | | ● | | Radial | 105℃ 10,000 to 12,000 hours +R | 160 to 400 |
| | | LE | 182 | Long life, downsized | | ● | | ● | ● | Radial | 105℃ 10,000 hours +R | 10 to 100 |
| | | FL | 184 | Long life, downsized | | ● | | ● | ● | Radial | 105℃ 3,000 hours +R | 6.3 to 50 |
| | | GPA (Upgrade!) | 186 | 125℃, downsized, Guaranteed short time at 150℃ | | ● | ● | ● | ● | Radial | 125℃ 3,000 to 5,000 hours +R | 25 to 100 |
| | | GXE | 189 | 125℃, low impedance, downsized | | ● | ● | ● | ● | Radial | 125℃ 2,000 to 5,000 hours +R | 10 to 450 |
| | | GXL | 191 | 125℃ | | | | ● | ● | Radial | 125℃ 5,000 hours +R | 10 to 50 |
| | | GPD (New!) | 193 | 135℃, high ripple,Guaranteed short time at 150℃ | | ● | ● | ● | ● | Radial | 135℃ 2,000 to 3,000 hours +R | 25 to 100 |
| | | GXH | 196 | 135℃ | | | | ● | ● | Radial | 135℃ 1,500 / 2,000 hours +R | 10 to 50 |
| | Special Application | LBK (New!) | – | For airbag, downsized (Ask Engineering Bulletin No.820 in detail) | | ● | ● | ● | | Radial | 105℃ 5,000 hours +R | 25 & 35 |
| | | LBG | 198 | For airbag | | ● | ● | ● | | Radial | 105℃ 5,000 hours +R | 25 & 35 |
| | | KZA | – | For PC motherboard (Ask Engineering Bulletin No.809 in detail) | | ● | ● | | | Radial | 105℃ 2,000 hours +R | 6.3 to 16 |
| | | LLA | – | Low DC leakage, general (Ask Engineering Bulletin No.575 in detail) | | ● | | | | Radial | 85℃ 1,000 hours | 6.3 to 50 |
| | | PH | 200 | For photo flash | | ● | | | | Radial | 55℃ 5,000 times charging | 300 & 330 |

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## ■ALUMINUM ELECTROLYTIC CAPACITORS

| Series | | | Page | Features | Standard Type | Miniaturization Low profile type | High ripple | Long life | High reliability | Endurance (+R=With ripple) | Terminal type | Rated voltage range (Vdc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Snap-in Type | General Purpose | SMR (New!) | 205 | 85℃, downsized | | ● | ● | | | 85℃ 2,000 hours +R | Pin | 400 to 450 |
| | | SMQ | 207 | 85℃, standard | ● | ● | ● | | | 85℃ 2,000 hours +R | Pin | 160 to 450 |
| | | KMW | 210 | 105℃, super downsized | | ● | | | | 105℃ 2,000 hours +R | Pin | 400 to 450 |
| | | KMR | 212 | 105℃, downsized | | ● | ● | | | 105℃ 2,000 hours +R | Pin | 160 to 450 |
| | | KMQ | 215 | 105℃, standard | ● | | ● | | | 105℃ 2,000 hours +R | Pin | 35, 50, 160 to 450 |
| | | SMM | 219 | 85℃, 3,000 hours | ● | | ● | ● | | 85℃ 3,000 hours +R | Pin | 160 to 450 |
| | | KMT | 223 | 105℃, high ripple | | | ● | | | 105℃ 3,000 hours +R | Pin | 420 & 450 |
| | | KMS | 225 | 105℃, downsized | ● | ● | ● | ● | | 105℃ 3,000 hours +R | Pin | 160 to 500 |
| | | KMM | 228 | 105℃, 2,000/3,000 hours | ● | | ● | ● | | 105℃ 2,000 to 3,000 hours +R | Pin | 160 to 450 |
| | | SMH | 233 | 85℃, standard (Ask Engineering Bulletin No.585 for 160 to 450V) | | | | | | 85℃ 2,000 hours +R | Pin | 6.3 to 100 |
| | | KMH | 236 | 105℃, standard (Ask Engineering Bulletin No.584 for 160 to 450V) | | | | | | 105℃ 2,000 hours +R | Pin | 6.3 to 100 |
| | Low Profile | SLM | 239 | 15mm height, low profile | | ● | | | | 85℃ 2,000 hours +R | Pin | 160 to 400 |
| | | KLM | 240 | 15mm height, low profile | | ● | | | | 105℃ 2,000 hours +R | Pin | 160 to 400 |
| | High Reliability | TXH | 241 | Long life | | | | ● | ● | 105℃ 10,000 hours +R | Pin | 200 to 450 |
| | | LXM | 243 | Long life, downsized | | ● | | ● | ● | 105℃ 7,000 hours +R | Pin | 160 to 450 |
| | | LXS | 246 | Long life, downsized | ● | ● | ● | ● | | 105℃ 5,000 hours +R | Pin | 160 to 500 |
| | | LXQ | 249 | Long life, downsized | | ● | | ● | ● | 105℃ 5,000 hours +R | Pin | 160 to 450 |
| | | LXG | 252 | Long life | | | | ● | ● | 105℃ 5,000 hours +R | Pin | 10 to 100 |
| | | CHA | 255 | No sparks with DC overvoltage, downsized | | ● | ● | | ● | 105℃ 2,000 hours +R | Pin | 200 to 450 |
| | | LXH | 257 | No sparks with DC overvoltage | | ● | ● | ● | ● | 105℃ 3,000/5,000 hours +R | Pin | 200 & 400 |
| | | KMV | 259 | For charge and discharge application | | | | | ● | 105℃ 3,000 hours +R | Pin | 350 to 450 |
| Screw-Mount Type | General Purpose | SME | 266 | 85℃, standard (Ask Engineering Bulletin No.548 for 160 to 250V) | ● | | | | | 85℃ 2,000 hours +R | Screw | 10 to 100 |
| | | KMQ | 268 | 105℃, downsized | | ● | | | | 105℃ 2,000 hours +R | Screw | 315 to 450 |
| | | KMH | 270 | 105℃, standard | ● | | | | | 105℃ 2,000 hours +R | Screw | 10 to 400 |
| | For Inverter | RWH (New!) | 274 | High ripple, downsized | | ● | ● | ● | | 85℃ 5,000 hours +R | Screw | 350 to 450 |
| | | RWG | 276 | Long life, high ripple, downsized | | ● | ● | ● | | 85℃ 5,000 hours +R | Screw | 350 to 450 |
| | | RWF | 278 | Long life, high ripple | | ● | ● | ● | | 85℃ 5,000 hours +R | Screw | 350 to 450 |
| | | RWR (New!) | 280 | High ripple, downsized | | ● | ● | | | 85℃ 2,000 hours +R | Screw | 350 to 450 |
| | | RWQ | 282 | High ripple, downsized | ● | ● | | | | 85℃ 2,000 hours +R | Screw | 350 to 550 |
| | | RWE | 284 | High ripple | ● | ● | | | | 85℃ 2,000 hours +R | Screw | 350 to 550 |
| | | RWY | 286 | Long life, high ripple, low cost | | | ● | ● | | 85℃ 5,000 hours +R | Screw | 350 to 450 |
| | | RWL | 288 | Long life, high ripple | | | ● | ● | ● | 85℃ 20,000 hours +R | Screw | 350 to 450 |
| | | RHA (New!) | 290 | High voltage, high ripple | | ● | ● | ● | | 85℃ 5,000 hours +R | Screw | 500 to 650 |
| | | FTP | 292 | Ellips can shape, high ripple | | ● | ● | ● | | 85℃ 5,000 hours +R | Screw | 63 to 450 |
| | | LXA | 294 | 105℃, long life | | ● | | ● | ● | 105℃ 2,000/5,000 hours +R | Screw | 10 to 525 |
| | | LXR | 298 | 105℃, long life, high ripple | | | ● | ● | ● | 105℃ 5,000 hours +R | Screw | 350 to 450 |
| | | RWV | 300 | For charge and discharge application | | | | | ● | 85℃ 5,000 hours +R | Screw | 350 to 450 |

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