

SHRINKING BODY

缩体品

- 4φ~10φ、105℃、Guarantee of life 2,000 hours, 4φ~10φ、105℃、2,000小时寿命保证
- Smaller size than FVH series 比FVH系列小尺寸产品
- HIGH DENSITY PCB design for surface adhesion 适用表面黏着之高密度PCB设计
- Comply with the RoHS directive 符合RoHS指令



SPECIFICATIONS 特性表

| Items 项目 | Characteristics 主要特性 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------|--|---------|---|--------|---|------|---|------------|------|----------------------|------|------|------|------|------------|-----------|------|------|------|------|------|------------------|------------|----|---|---|---|---|---|------------|----|---|---|---|---|---|
| Operation Temperature Range 使用温度范围 | -55℃~+105℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance 静电容量允许偏差 | 6.3~50V ±20% at 120Hz, 20℃ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current 漏电流 | <table border="1"> <tr> <td>额定电压</td> <td>6.3 ~ 50V</td> </tr> <tr> <td>测试时间</td> <td>2 分钟后</td> </tr> <tr> <td>漏电流</td> <td>I = 0.01CV 或 3 μA, 取较大值</td> </tr> </table> <p>C = 额定静电容量(μF/微法拉) V = 额定直流工作电压(V/伏特)</p> | 额定电压 | 6.3 ~ 50V | 测试时间 | 2 分钟后 | 漏电流 | I = 0.01CV 或 3 μA, 取较大值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 额定电压 | 6.3 ~ 50V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 测试时间 | 2 分钟后 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏电流 | I = 0.01CV 或 3 μA, 取较大值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor (tan δ) 损耗角正切 | <p>Measurement frequency 测试频率: 120Hz, Temperature 温度 : 20℃</p> <table border="1"> <tr> <td>Rated Voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tan δ(max.)</td> <td>∅4~∅10</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> </tr> <tr> <td>最大损耗角正切</td> <td>∅12.5~∅16</td> <td>0.35</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.18</td> <td>0.16</td> </tr> </table> <p>当额定静电容量大于1,000微法拉时, 每增加1,000微法拉需加0.02。</p> | Rated Voltage (V) 额定工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | tan δ(max.) | ∅4~∅10 | 0.30 | 0.24 | 0.20 | 0.18 | 0.16 | 0.14 | 最大损耗角正切 | ∅12.5~∅16 | 0.35 | 0.28 | 0.24 | 0.20 | 0.18 | 0.16 | | | | | | | | | | | | | | |
| Rated Voltage (V) 额定工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| tan δ(max.) | ∅4~∅10 | 0.30 | 0.24 | 0.20 | 0.18 | 0.16 | 0.14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 最大损耗角正切 | ∅12.5~∅16 | 0.35 | 0.28 | 0.24 | 0.20 | 0.18 | 0.16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stability at Low Temperature 低温特性 | <p>Measurement frequency 测试频率: 120Hz 阻抗比不可大于下表所列数值</p> <table border="1"> <tr> <td>Rated Voltage (V) 额定工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td rowspan="2">Impedance Ratio 阻抗比 Z(-25℃) / Z(20℃)</td> <td>■ D < 12.5</td> <td>4</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>■ D ≥ 12.5</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td rowspan="2">Z(-55℃) / Z(20℃)</td> <td>■ D < 12.5</td> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> <tr> <td>■ D ≥ 12.5</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table> | Rated Voltage (V) 额定工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | Impedance Ratio 阻抗比 Z(-25℃) / Z(20℃) | ■ D < 12.5 | 4 | 4 | 3 | 2 | 2 | 2 | ■ D ≥ 12.5 | 5 | 4 | 3 | 2 | 2 | 2 | Z(-55℃) / Z(20℃) | ■ D < 12.5 | 12 | 8 | 6 | 4 | 3 | 3 | ■ D ≥ 12.5 | 10 | 8 | 6 | 4 | 3 | 3 |
| Rated Voltage (V) 额定工作电压 | 6.3 | 10 | 16 | 25 | 35 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Impedance Ratio 阻抗比 Z(-25℃) / Z(20℃) | ■ D < 12.5 | 4 | 4 | 3 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ■ D ≥ 12.5 | 5 | 4 | 3 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-55℃) / Z(20℃) | ■ D < 12.5 | 12 | 8 | 6 | 4 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ■ D ≥ 12.5 | 10 | 8 | 6 | 4 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Durability 耐久性 | <table border="1"> <tr> <td>保证寿命时间</td> <td>■ D4~5: 1,000小时; ■ D6.3*7.7~10: 2,000 小时</td> </tr> <tr> <td>静电容量变化率</td> <td>■ D ≤ 6.3mm: ≤ 初始值的 ± 25%; ■ D ≥ 8mm: ≤ 初始值的 ± 20%</td> </tr> <tr> <td>损失角正切值</td> <td>■ D ≤ 6.3mm: ≤ 初始规格值的 300%; ■ D ≥ 8mm: ≤ 初始规格值的 200%</td> </tr> <tr> <td>漏电流</td> <td>≤ 初始规格值</td> </tr> </table> <p>产品置于105℃环境中供给额定电压2,000小时后, 待恢复至20℃的环境中进行量测时, 需满足上列要求。</p> | 保证寿命时间 | ■ D4~5: 1,000小时; ■ D6.3*7.7~10: 2,000 小时 | 静电容量变化率 | ■ D ≤ 6.3mm: ≤ 初始值的 ± 25%; ■ D ≥ 8mm: ≤ 初始值的 ± 20% | 损失角正切值 | ■ D ≤ 6.3mm: ≤ 初始规格值的 300%; ■ D ≥ 8mm: ≤ 初始规格值的 200% | 漏电流 | ≤ 初始规格值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 保证寿命时间 | ■ D4~5: 1,000小时; ■ D6.3*7.7~10: 2,000 小时 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 静电容量变化率 | ■ D ≤ 6.3mm: ≤ 初始值的 ± 25%; ■ D ≥ 8mm: ≤ 初始值的 ± 20% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 损失角正切值 | ■ D ≤ 6.3mm: ≤ 初始规格值的 300%; ■ D ≥ 8mm: ≤ 初始规格值的 200% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏电流 | ≤ 初始规格值 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High temperature load-free characteristic 高温无负荷特性 | 保证寿命时间: 1,000 小时; 其它测试项目同耐久性。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coefficient of correction 纹波电流与频率修正系数 | <table border="1"> <tr> <td>频率(Hz)</td> <td>50</td> <td>120</td> <td>1k</td> <td>10k ≡</td> </tr> <tr> <td>静电容量(μF) ≦ 1,000</td> <td>0.80</td> <td>1.00</td> <td>1.25</td> <td>1.40</td> </tr> <tr> <td>1,000 < 静电容量 ≤ 8,200</td> <td>0.85</td> <td>1.00</td> <td>1.15</td> <td>1.25</td> </tr> </table> | 频率(Hz) | 50 | 120 | 1k | 10k ≡ | 静电容量(μF) ≦ 1,000 | 0.80 | 1.00 | 1.25 | 1.40 | 1,000 < 静电容量 ≤ 8,200 | 0.85 | 1.00 | 1.15 | 1.25 | | | | | | | | | | | | | | | | | | | | | | |
| 频率(Hz) | 50 | 120 | 1k | 10k ≡ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 静电容量(μF) ≦ 1,000 | 0.80 | 1.00 | 1.25 | 1.40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,000 < 静电容量 ≤ 8,200 | 0.85 | 1.00 | 1.15 | 1.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marking 标识 | Black print on the case top. 铝壳顶部黑字印刷。 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Diagram of Dimensions 尺寸图



PRODUCT DIMENSION SHEET (Unit: mm) 产品尺寸表

| DXL | 4×5.8 | 5×5.8 | 6.3×5.8 | 6.3×7.7 | 8×6.2 | 8×10.5 | 10×10.5 |
|-------|---------|---------|---------|---------|-------|----------|----------|
| A | 4.3 | 5.3 | 6.6 | 6.6 | 8.3 | 8.3 | 10.3 |
| B | 4.3 | 5.3 | 6.6 | 6.6 | 8.3 | 8.3 | 10.3 |
| C | 5.1 | 5.9 | 7.2 | 7.2 | 9.2 | 9.2 | 11.2 |
| P±0.2 | 1.0 | 1.5 | 2.0 | 2.0 | 2.3 | 3.1 | 4.4 |
| L | 5.8±0.3 | 5.8±0.3 | 5.8±0.3 | 7.7±0.3 | 6.2 | 10.5±0.5 | 10.5±0.5 |

□ DRAWING (Unit: mm) 外形尺寸图



□ PRODUCT DIMENSION AND PARAMETER LIST 产品尺寸与参数一览表

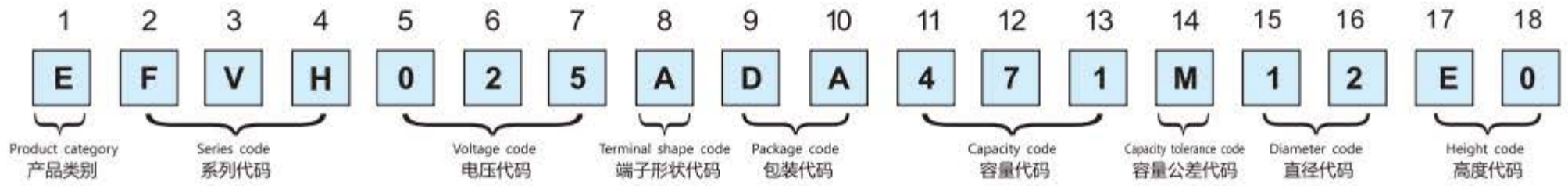
| 额定电压 VDC | | 6.3V(0J) | | 10V(1A) | | 16V(1C) | | 25V(1E) | | 35V(1V) | | 50V(1H) | |
|----------|-----|----------|-----|---------|-----|---------|-----|------------------|----------|------------------|----------|------------------|-----------|
| 静电容量(μF) | | ØD×L | mA | ØD×L | mA | ØD×L | mA | ØD×L | mA | ØD×L | mA | ØD×L | mA |
| 10 | 100 | 4×5.8 | 19 | 4×5.8 | 19 | 4×5.8 | 19 | 4×5.8 | 16 | 4×5.8 | 18 | 4×5.8 | 20 |
| 22 | 220 | 4×5.8 | 23 | 4×5.8 | 20 | 4×5.8 | 25 | 5×5.8 | 32 | 5×5.8 | 32 | 5×5.8 | 32 |
| 33 | 330 | 4×5.8 | 30 | 4×5.8 | 22 | 4×5.8 | 35 | 5×5.8 | 35 | 5×5.8 | 35 | 6.3×5.8 | 48 |
| 47 | 470 | 4×5.8 | 35 | 5×5.8 | 38 | 4×5.8 | 38 | 5×5.8 | 40 | 6.3×5.8 | 48 | 6.3×7.7 | 68 |
| 56 | 560 | 4×5.8 | 38 | 5×5.8 | 40 | 5×5.8 | 40 | 5×5.8 | 40 | 6.3×5.8 | 48 | 8×6.2 | 86 |
| 68 | 680 | 4×5.8 | 42 | 5×5.8 | 42 | 5×5.8 | 42 | 6.3×5.8 | 48 | 6.3×5.8 | 48 | 8×6.2 | 92 |
| 100 | 101 | 5×5.8 | 54 | 5×5.8 | 60 | 5×5.8 | 60 | 6.3×5.8 8×6.2 | 80 90 | 6.3×5.8 8×6.2 | 80 90 | 8×6.2 6.3×7.7 | 100 92 |
| 220 | 221 | 5×5.8 | 90 | 6.3×5.8 | 90 | 6.3×5.8 | 90 | 6.3×7.7 | 120 | 8×10.5 | 190 | 8×10.5 | 190 |
| 270 | 271 | 6.3×5.8 | 105 | 6.3×5.8 | 105 | 6.3×7.7 | 120 | 8×10.5 | 230 | 8×10.5 | 190 | | |
| 330 | 331 | 6.3×7.7 | 120 | 6.3×7.7 | 120 | 6.3×7.7 | 120 | 8×10.5 | 230 | 10×10.5 | 310 | | |
| 470 | 471 | 6.3×7.7 | 140 | 6.3×7.7 | 140 | 6.3×7.7 | 140 | 10×10.5 | 310 | | | | |
| 560 | 561 | 6.3×7.7 | 165 | 8×10.5 | 280 | 8×10.5 | 280 | | | | | | |
| 680 | 681 | 6.3×7.7 | 345 | 8×10.5 | 280 | 10×10.5 | 310 | | | | | | |
| 1000 | 102 | 8×10.5 | 330 | 10×10.5 | 380 | 10×10.5 | 380 | | | | | | |
| 1500 | 152 | 10×10.5 | 380 | 10×10.5 | 380 | | | | | | | | |

尺寸: 直径(φD)×长度(L), (毫米/mm)容许纹波电流: 毫安/均方根值(mA/rms), 120 赫兹(Hz), 105°C

- The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.
- 铝电解电容器由于在纹波电流叠加时自我发热, 温度上升而老化, 每升温5°C寿命减少一半; 要想保持长寿命请在使用过程中降低纹波电流。

- Taping specifications are given in page 17 "Taping Specifications". 编带标准请参阅第 17 页 "编带标准"。
- Please refer to page 18 "Package Quantity" for the minimum package quantity. 最小包装数量请参阅第 18 页 "包装数量"。

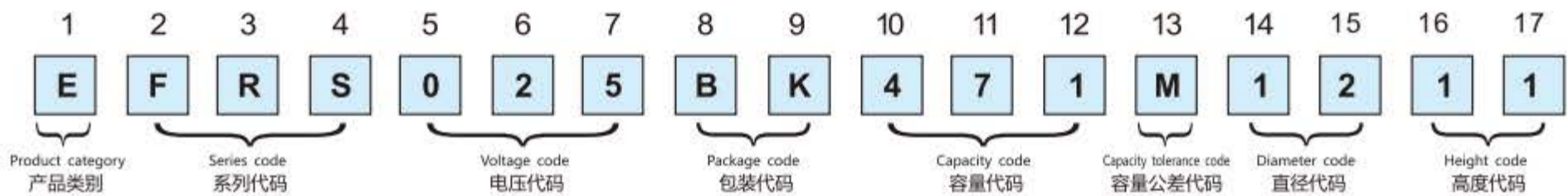
SMD EXPLANATION OF PART NUMBERS 贴片产品编码规则



| (2, 3, 4) | | | (5, 6, 7) | | (11, 12, 13) | | (14) | (8) | | (15, 16) | | (17, 18) | |
|--------------|------------------------|------------|-----------------------------|------------|------------------------------|------------|---------------------------|-----|------------|---------------------------------|------------|----------------------|------------|
| Series 系列 | Voltage (w.v) 电压 | Code 代码 | Capacitance (uF) 静电容量 | Code 代码 | Cap.Tolerance (%) 容量允许 | Code 代码 | Tape 端子类型 | | Code 代码 | Diameter (\square) 直径 | Code 代码 | Length (mm) 高度 | Code 代码 |
| FVE | 4 | 4R0 | 0.1 | 0R1 | ± 10 | K | No dummy terminal 无辅助端子 | | A | 4 | 04 | 4.5 | 45 |
| FVH | 6.3 | 6R3 | 0.22 | R22 | ± 20 | M | With dummy terminal 有辅助端子 | | G | 5 | 05 | 5.4 | 54 |
| FVA | 10 | 010 | 1 | 010 | | | | | | 6.3 | 06 | 5.8 | 58 |
| FVZ | 16 | 016 | 4.7 | 4R7 | | | | | | 8 | 08 | 6.5 | 65 |
| FVR | 25 | 025 | 10 | 100 | | | | | | 10 | 10 | 7.7 | 77 |
| FVL | 35 | 035 | 47 | 470 | | | | | | 12.5 | 12 | 10.2 | A0 |
| FVM | 50 | 050 | 100 | 101 | | | | | | 16 | 16 | 10.5 | B0 |
| FVU | 63 | 063 | 470 | 471 | | | | | | 18 | 18 | 13.5 | E0 |
| FVG | 100 | 100 | 1000 | 102 | | | | | | | | 16 | G5 |
| FVB | 160 | 160 | 4700 | 472 | | | | | | | | 16.5 | H0 |
| FVN | 250 | 250 | 10000 | 103 | | | | | | | | 21.5 | N0 |
| FVD | 350 | 350 | | | | | | | | | | | |
| FVC | 400 | 400 | | | | | | | | | | | |

| (9, 10) | | | |
|--------------------|---|-------------------------------------|------------|
| Packaging 包装要求 | External diameter 纸盘外径 \square (mm) | Fit size 适合尺寸 \square D(mm) | Code 代码 |
| | | | |
| Paper tray 纸盘 | 380 | \varnothing D4~18 | DA |
| Glue tray 胶盘 | 330 | \varnothing D4~18 | DB |
| Blister box 吸塑盒 | 380 | \varnothing D4~10 | RA |
| | - | \varnothing D12.5~18 | TR |

Radial EXPLANATION OF PART NUMBERS 插件产品编码规则



| (2, 3, 4) | | | (5, 6, 7) | | (10, 11, 12) | | (13) | (8, 9) | | (14, 15) | | (16, 17) | |
|--------------|------------------------|------------|-----------------------------|------------|------------------------------|------------|------------------------|--------|------------|-------------------------------------|------------|----------------------|------------|
| Series 系列 | Voltage (w.v) 电压 | Code 代码 | Capacitance (uF) 静电容量 | Code 代码 | Cap.Tolerance (%) 容量允许 | Code 代码 | Packaging 包装形式 | | Code 代码 | Diameter (\varnothing) 直径 | Code 代码 | Length (mm) 高度 | Code 代码 |
| FRA | 4 | 4R0 | 0.1 | 0R1 | ± 10 | K | Long-legged bulk长脚散装 | | BK | 4 | 04 | 4.5 | 04 |
| FRS | 6.3 | 6R3 | 0.22 | R22 | ± 20 | M | Long-legged taping长脚编带 | | BA | 5 | 05 | 5.5 | 05 |
| FRU | 10 | 010 | 1 | 010 | | | | | | 6.3 | 06 | 6.0 | 06 |
| FRK | 16 | 016 | 4.7 | 4R7 | | | | | | 8 | 08 | 6.5 | 06 |
| FBR | 25 | 025 | 10 | 100 | | | | | | 10 | 10 | 7.0 | 07 |
| FBU | 35 | 035 | 47 | 470 | | | | | | 12.5 | 12 | 8.0 | 08 |
| | 50 | 050 | 100 | 101 | | | | | | 16 | 16 | 10 | 10 |
| | 63 | 063 | 470 | 471 | | | | | | 18 | 18 | 11 | 11 |
| | 100 | 100 | 1000 | 102 | | | | | | | | 11.5 | 11 |
| | 160 | 160 | 4700 | 472 | | | | | | | | 12 | 12 |
| | 250 | 250 | 10000 | 103 | | | | | | | | 16 | 16 |
| | 350 | 350 | | | | | | | | | | | |
| | 400 | 400 | | | | | | | | | | | |

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Aluminium Electrolytic Capacitors - SMD category](#):

Click to view products by [FOLLON manufacturer](#):

Other Similar products are found below :

[ULV2H4R7MNL1GS](#) [ULV2H1R8MNL1GS](#) [EMZA500ARA221MJA0G](#) [MAL214099813E3](#) [CA025M4R70REB-0405](#)

[UCX1V471MNQ1MS](#) [10SVP120M](#) [DV100M050C055ETR](#) [RVJ-50V101MH10U-R](#) [AEH1012471M016R](#) [MAL213967339E3](#)

[GVT1C337M0608CNVC](#) [EMK1EM331FB0D00R](#) [EMF1CM221FB0D00R](#) [EMF1CM331FB0D00R](#) [EMF1CM471FB0D00R](#)

[EMK1AM102GB0D00R](#) [EMK1HM221GB0D00R](#) [DV221M6R3E055ETR](#) [DV221M025E077ETR](#) [RV331M025F105ETR](#) [RVT1A101M0505](#)

[GVZ1H101M0607](#) [CK1E100M0405](#) [GVM1E331M0607](#) [VT10UF100V167RV0127](#) [VT100UF16V167RV0124](#) [CS100UF35V167RV0155](#)

[CK220UF16V167RV0142](#) [VT10UF16V167RV0128](#) [VT22UF35V167RV0131](#) [CS470UF10V167RV0150](#) [CK100UF16V167RV0138](#)

[CK220UF10V167RV0141](#) [RVT330UF25V167RV0055](#) [VT470UF16V167RV0135](#) [CS100UF10V167RV0144](#) [126RV0017](#)

[VT47UF35V167RV0137](#) [CS220UF35V167RV0148](#) [126RV0010](#) [126RV0009](#) [VT220UF25V167RV160](#) [VT220UF16V167RV0088](#)

[126RV0012](#) [126RV0011](#) [126RV0013](#) [126RV0018](#) [126RV0008](#) [126RV0015](#)