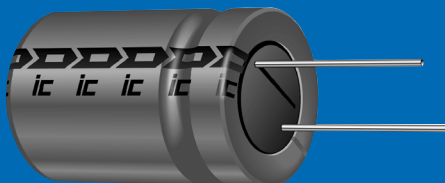


# HSM

查询"105NSM050M"供应商

## +125°C Standard Radial Lead Aluminum Electrolytic Capacitors



*For automotive and telecommunication applications*

### FEATURES

- 125°C Temperature rating
- Extended Life
- Voltage range: 10 WVDC to 63WVDC
- Capacitance Range: 1.0μF to 4,700μF

### SPECIFICATIONS

|                                                                                |          |                                                                                           |               |                |      |                                                                                                     |                 |      |  |     |      |
|--------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------|---------------|----------------|------|-----------------------------------------------------------------------------------------------------|-----------------|------|--|-----|------|
| Capacitance Tolerance                                                          |          | ±20% at 120Hz, 20°C                                                                       |               |                |      |                                                                                                     |                 |      |  |     |      |
| Operating Temperature Range                                                    |          | -40°C to +125°C                                                                           |               |                |      |                                                                                                     |                 |      |  |     |      |
| Dissipation Factor<br>120Hz, 20°C                                              | WVDC     | 10                                                                                        | 16            | 25             | 35   | 50                                                                                                  | 63              |      |  |     |      |
|                                                                                | tan δ    | .2                                                                                        | .16           | .14            | .12  | .1                                                                                                  | .1              |      |  |     |      |
| Note: For above D.F. specifications, add .02 for every 1,000 µf above 1,000 µf |          |                                                                                           |               |                |      |                                                                                                     |                 |      |  |     |      |
| Impedance Ratio<br>(Max.) @120Hz                                               | WVDC     | 10                                                                                        | 16            | 25             | 35   | 50                                                                                                  | 63              |      |  |     |      |
|                                                                                | -25/20°C | 3                                                                                         | 2             | 2              | 2    | 2                                                                                                   | 2               |      |  |     |      |
|                                                                                | -40/20°C | 4                                                                                         | 4             | 4              | 4    | 4                                                                                                   | 4               |      |  |     |      |
| Leakage Current                                                                | WVDC     | ≤ 63WVDC                                                                                  |               |                |      |                                                                                                     |                 |      |  |     |      |
|                                                                                | Time     | 1 minute                                                                                  |               | 2 minutes      |      |                                                                                                     |                 |      |  |     |      |
|                                                                                |          | .03 CV or 4 µA                                                                            |               | .01 CV or 3 µA |      |                                                                                                     |                 |      |  |     |      |
|                                                                                |          | Whichever is greater                                                                      |               |                |      |                                                                                                     |                 |      |  |     |      |
| Load Life                                                                      |          | 1,000 hours at 125°C with rated WVDC                                                      |               |                |      |                                                                                                     |                 |      |  |     |      |
|                                                                                |          | Capacitance change<br>Dissipation factor<br>Leakage current                               |               |                |      | < 20% of initial measured value<br><200% of initial specified value<br><100%Initial specified value |                 |      |  |     |      |
| Shelf Life                                                                     |          | 1,000 hours at 105°C with no voltage applied.<br>Units will meet load life specification. |               |                |      |                                                                                                     |                 |      |  |     |      |
| Ripple Current Multipliers                                                     |          |                                                                                           | Frequency(Hz) |                |      |                                                                                                     | Temperature(°C) |      |  |     |      |
|                                                                                |          | Capacitance (µF)                                                                          | 50            | 120            | 300  | 1K                                                                                                  | 10K             | +105 |  | +85 | +70  |
|                                                                                |          | C≤47                                                                                      | .75           | 1.0            | 1.35 | 1.57                                                                                                | 2               | 1.00 |  | 1.4 | 1.65 |
|                                                                                |          | 47<C≤470                                                                                  | .8            | 1.0            | 1.23 | 1.34                                                                                                | 1.5             | 1.00 |  | 1.4 | 1.65 |
|                                                                                |          | C>470                                                                                     | .85           | 1.0            | 1.1  | 1.13                                                                                                | 1.15            | 1.00 |  | 1.4 | 1.65 |

### SPECIAL ORDER OPTIONS

(See pages 33 thru 37)

- Special tolerances: ±10% (K), -10% + 30% (Q)
- Tape and Reel/Ammo Pack
- Cut, Formed, Cut and Formed, and Snap In Leads



3757 W. Touhy Ave., Lincolnwood, IL 60712 • (847) 675-1760 • Fax (847) 673-2850 • [www.illcap.com](http://www.illcap.com)

# HSM

+ 125°C Standard  
Radial Lead Aluminum  
Electrolytic Capacitors

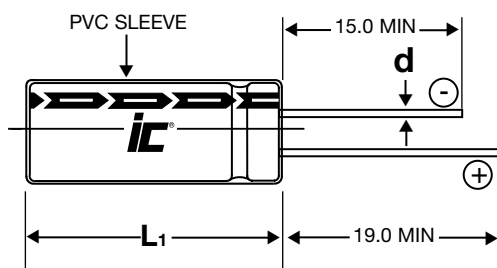
查询"105HSM050M"供应商

## PHYSICAL DIMENSIONS

| WVDC<br>(μF)<br>(SV) | 10<br>(13) | 16<br>(20) | 25<br>(32) | 35<br>(44) | 50<br>(63) | 63<br>(79) |
|----------------------|------------|------------|------------|------------|------------|------------|
| 1                    |            |            |            |            | 8x11.5     |            |
| 2.2                  |            |            |            |            | 8x11.5     |            |
| 3.3                  |            |            |            |            | 8x11.5     |            |
| 4.7                  |            |            |            |            | 8x11.5     |            |
| 10                   |            |            |            |            | 8x11.5     |            |
| 22                   |            |            |            |            | 8x11.5     |            |
| 33                   |            |            |            |            | 8x11.5     |            |
| 47                   |            |            |            |            | 8x11.5     | 10x12.5    |
| 100                  |            |            | 8x11.5     |            | 10x12.5    | 10x16      |
| 220                  | 8x11.5     |            | 10x12.5    | 10x16      | 10x20      | 12.5x20    |
| 330                  |            | 10x12.5    | 10x16      | 10x20      | 12.5x20    | 12.5x25    |
| 470                  | 10x12.5    | 10x16      | 10x20      | 12.5x20    | 12.5x25    | 16x25      |
| 1000                 | 10x20      | 12.5x20    | 12.5x25    | 16x25      | 16x31.5    |            |
| 2200                 | 12.5x25    | 16x25      | 16x31.5    |            |            |            |
| 3300                 | 16x25      | 16x31.5    |            |            |            |            |
| 4700                 | 16x31.5    |            |            |            |            |            |

Convert to inches, divide by 25.4.

DxL(mm)



NOTE: Case Vent is standard on all diameter ≥8.0mm

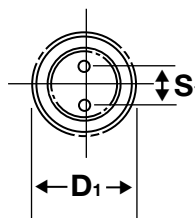
LEAD INFORMATION V.S. CASE DIAMETER

| D | 8.0 | 10.0 | 12.5 | 16  |
|---|-----|------|------|-----|
| S | 3.5 | 5.0  | 5.0  | 7.5 |
| d | 0.6 | 0.6  | 0.6  | 0.8 |
| B | 0.5 | 0.5  | 0.8  | 0.5 |

L<sub>1</sub>=L+2.0mm Max.

D<sub>1</sub>=D+B Max.

S<sub>1</sub>=S±0.5mm



# HSM

+ 125°C Standard  
Radial Aluminum  
Electrolytic Capacitors

查询"105HSM050M"供应商

## STANDARD PART LISTING

| Capacitance<br>( $\mu$ F) | WVDC | <b>ic</b> ® PART<br>NUMBER | Maximum<br>ESR<br>$\Omega$<br>120Hz, +20°C | Maximum RMS<br>Ripple Current<br>(mA)<br>120Hz, +125°C | Dimension<br>DxL<br>(mm) |
|---------------------------|------|----------------------------|--------------------------------------------|--------------------------------------------------------|--------------------------|
| 1                         | 50   | 105HSM050M                 | 165.786                                    | 10                                                     | 8x11.5                   |
| 2.2                       | 50   | 225HSM050M                 | 75.357                                     | 22                                                     | 8x11.5                   |
| 3.3                       | 50   | 335HSM050M                 | 50.238                                     | 27                                                     | 8x11.5                   |
| 4.7                       | 50   | 475HSM050M                 | 35.274                                     | 32                                                     | 8x11.5                   |
| 10                        | 50   | 106HSM050M                 | 16.579                                     | 47                                                     | 8x11.5                   |
| 22                        | 50   | 226HSM050M                 | 7.536                                      | 70                                                     | 8x11.5                   |
| 33                        | 50   | 336HSM050M                 | 5.024                                      | 85                                                     | 8x11.5                   |
| 47                        | 50   | 476HSM050M                 | 3.527                                      | 105                                                    | 8x11.5                   |
| 47                        | 63   | 476HSM063M                 | 3.527                                      | 120                                                    | 10x12.5                  |
| 100                       | 25   | 107HSM025M                 | 2.321                                      | 125                                                    | 8x11.5                   |
| 100                       | 50   | 107HSM050M                 | 1.658                                      | 180                                                    | 10x12.5                  |
| 100                       | 63   | 107HSM063M                 | 1.658                                      | 200                                                    | 10x16                    |
| 220                       | 10   | 227HSM010M                 | 1.507                                      | 155                                                    | 8x11.5                   |
| 220                       | 25   | 227HSM025M                 | 1.055                                      | 220                                                    | 10x12.5                  |
| 220                       | 35   | 227HSM035M                 | 0.904                                      | 260                                                    | 10x16                    |
| 220                       | 50   | 227HSM050M                 | 0.754                                      | 320                                                    | 10x20                    |
| 220                       | 63   | 227HSM063M                 | 0.754                                      | 360                                                    | 12.5x20                  |
| 330                       | 16   | 337HSM016M                 | 0.804                                      | 250                                                    | 10x12.5                  |
| 330                       | 25   | 337HSM025M                 | 0.703                                      | 300                                                    | 10x16                    |
| 330                       | 35   | 337HSM035M                 | 0.603                                      | 350                                                    | 10x20                    |

| Capacitance<br>( $\mu$ F) | WVDC | <b>ic</b> ® PART<br>NUMBER | Maximum<br>ESR<br>$\Omega$<br>120Hz, +20°C | Maximum RMS<br>Ripple Current<br>(mA)<br>120Hz, +125°C | Dimension<br>DxL<br>(mm) |
|---------------------------|------|----------------------------|--------------------------------------------|--------------------------------------------------------|--------------------------|
| 330                       | 50   | 337HSM050M                 | 0.502                                      | 430                                                    | 12.5x20                  |
| 330                       | 63   | 337HSM063M                 | 0.502                                      | 480                                                    | 12.5x25                  |
| 470                       | 10   | 477HSM010M                 | 0.705                                      | 270                                                    | 10x12.5                  |
| 470                       | 16   | 477HSM016M                 | 0.564                                      | 330                                                    | 10x16                    |
| 470                       | 25   | 477HSM025M                 | 0.494                                      | 390                                                    | 10x20                    |
| 470                       | 35   | 477HSM035M                 | 0.423                                      | 470                                                    | 12.5x20                  |
| 470                       | 50   | 477HSM050M                 | 0.353                                      | 570                                                    | 12.5x25                  |
| 470                       | 63   | 477HSM063M                 | 0.353                                      | 650                                                    | 16x25                    |
| 1000                      | 10   | 108HSM010M                 | 0.332                                      | 470                                                    | 10x20                    |
| 1000                      | 16   | 108HSM016M                 | 0.265                                      | 590                                                    | 12.5x20                  |
| 1000                      | 25   | 108HSM025M                 | 0.232                                      | 700                                                    | 12.5x25                  |
| 1000                      | 35   | 108HSM035M                 | 0.199                                      | 850                                                    | 16x25                    |
| 1000                      | 50   | 108HSM050M                 | 0.166                                      | 1030                                                   | 16x31.5                  |
| 2200                      | 10   | 228HSM010M                 | 0.181                                      | 820                                                    | 12.5x25                  |
| 2200                      | 16   | 228HSM016M                 | 0.151                                      | 1030                                                   | 16x25                    |
| 2200                      | 25   | 228HSM025M                 | 0.136                                      | 1210                                                   | 16x31.5                  |
| 3300                      | 10   | 338HSM010M                 | 0.131                                      | 1090                                                   | 16x25                    |
| 3300                      | 16   | 338HSM016M                 | 0.111                                      | 1330                                                   | 16x31.5                  |
| 4700                      | 10   | 478HSM010M                 | 0.099                                      | 1390                                                   | 16x31.5                  |
|                           |      |                            |                                            |                                                        |                          |