



# DATA SHEET

## CHIP Low Impedance 105°C

### Serie: I15008

Voltage: 25Volt Range: 1500μF

Impedance: 0,09Ω Dimension 12,5x16mm

Ripple Current: 950mA

**CHIP Low Impedance 105°C**

Serie No.: **I15008**

Customer:

|       |        |      |        |        |        |           |           |          |            |
|-------|--------|------|--------|--------|--------|-----------|-----------|----------|------------|
| DRW:  | Jason  | CHKD | Wilson | MATL:  | Wilson | TOLERANCE | Mason     | DATE     | 03.06.2014 |
| APPD: | Schumi |      |        | FINISH | Jamy   |           | Sheet No. | 1 from 7 |            |

# EDCON-COMPONENTS



Designed for surface mounting on high density circuit board

Emboss carrier tape packing systems is available for automatic insertion



## Technical Informations

|                                          |           |
|------------------------------------------|-----------|
| Voltage:                                 | 25Volt    |
| Range;                                   | 1500µF    |
| Dimension; D x L mm                      | 12,5x16mm |
| Impedance (Ω) max., at 20°C, 100kHz      | 0,09Ω     |
| Ripple Current (mA rms) at 105°C, 100kHz | 950mA     |

| Ordering Code |         |    |   |
|---------------|---------|----|---|
| 250           | Voltage |    |   |
| 152           | Range   |    |   |
| D=            | I       | L= | 7 |

Low Impedance with Operating Temperatur Range of -55°C ~ +105°C  
Load Life of 1000~2000hours

|                                          |                      |               |                                                          |      |      |      |      |      |  |  |  |  |  |  |
|------------------------------------------|----------------------|---------------|----------------------------------------------------------|------|------|------|------|------|--|--|--|--|--|--|
| Leakage current max.                     | Ø4 ~ Ø10mm           |               | I= 0,01CV or 3µA whichever is greater ( after 2 minutes) |      |      |      |      |      |  |  |  |  |  |  |
|                                          | Ø12,5 ~ Ø16mm        |               | I= 0,03CV or 4µA whichever is greater ( after 1 minutes) |      |      |      |      |      |  |  |  |  |  |  |
| Capacitance tolerance                    | ± 20% at 120Hz, 20°C |               |                                                          |      |      |      |      |      |  |  |  |  |  |  |
| Dissipation factor max. (at 120Hz, 20°C) | WV                   |               | 6,3                                                      | 10   | 16   | 25   | 35   | 50   |  |  |  |  |  |  |
|                                          | Tanδ                 | Ø4 ~ Ø10mm    | 0,22                                                     | 0,19 | 0,16 | 0,14 | 0,12 | 0,12 |  |  |  |  |  |  |
|                                          |                      | Ø12,5 ~ Ø16mm | 0,26                                                     | 0,22 | 0,18 | 0,16 | 0,14 | 0,12 |  |  |  |  |  |  |

|                                                             |               |                 |     |    |    |    |    |    |  |  |  |  |  |  |
|-------------------------------------------------------------|---------------|-----------------|-----|----|----|----|----|----|--|--|--|--|--|--|
| Low Temperatur characteristics ( Impedance ratio at 120Hz ) | WV            |                 | 6,3 | 10 | 16 | 25 | 35 | 50 |  |  |  |  |  |  |
|                                                             | Ø4 ~ Ø10mm    | Z-25°C / Z+20°C | 2   | 2  | 2  | 2  | 2  | 2  |  |  |  |  |  |  |
|                                                             |               | Z-55°C / Z+20°C | 5   | 4  | 4  | 3  | 3  | 3  |  |  |  |  |  |  |
|                                                             | Ø12,5 ~ Ø16mm | Z-25°C / Z+20°C | 3   | 3  | 2  | 2  | 2  | 2  |  |  |  |  |  |  |
|                                                             |               | Z-55°C / Z+20°C | 10  | 8  | 6  | 4  | 3  | 3  |  |  |  |  |  |  |

|                                                                        |                          |  |                                   |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------|--------------------------|--|-----------------------------------|--|--|--|--|--|--|--|--|--|--|
| Load Life ( after aplication of the rated voltage for 2000hrs at 105°C | Leakage current          |  | Less than specified value         |  |  |  |  |  |  |  |  |  |  |
|                                                                        | Capacitance Change       |  | Within ±20% of initial value      |  |  |  |  |  |  |  |  |  |  |
|                                                                        | Tanδ                     |  | Less than 200% of specified value |  |  |  |  |  |  |  |  |  |  |
|                                                                        | Ø4 ~ Ø6,3x5,4: 1000hours |  |                                   |  |  |  |  |  |  |  |  |  |  |

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| DRW:  | Jason  | CHKD | Wilson | MATL:  | Wilson | TOLERANCE | Mason     | DATE     | 03.06.2014 | Customer: |
| APPD: | Schumi |      |        | FINISH | Jamy   |           | Sheet No. | 2 from 7 |            |           |

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|                       |                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------|
| Shell life (at 105°C) | After 1000hours no load test, leakage current, capacitance and tan $\delta$ are same as load life value. |
|-----------------------|----------------------------------------------------------------------------------------------------------|

|                              |                                                                                                                           |                                    |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Resistance to soldering heat | After reflow soldering and resistance at room temperature, they meet the characteristics requirements listed at underside |                                    |
|                              | Leakage current                                                                                                           | Less than specified value          |
|                              | Capacitance Change                                                                                                        | Within $\pm 10\%$ of initial value |
|                              | Tan $\delta$                                                                                                              | Less than specified value          |

| Size                                            | FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT |           |       |       |      |              |  |
|-------------------------------------------------|-----------------------------------------------------|-----------|-------|-------|------|--------------|--|
|                                                 | Capacitance                                         | Frequency |       |       |      |              |  |
|                                                 | $\mu\text{F}$                                       | 50Hz      | 120Hz | 300Hz | 1KHz | 10KHz $\leq$ |  |
| $\varnothing 4 \sim \varnothing 10\text{mm}$    | 1,0~ 68                                             | 0,35      | 0,50  | 0,64  | 0,83 | 1,00         |  |
|                                                 | 100~2200                                            | 0,40      | 0,55  | 0,70  | 0,85 | 1,00         |  |
| $\varnothing 12,5 \sim \varnothing 16\text{mm}$ | ~680                                                | 0,45      | 0,65  | 0,80  | 0,90 | 1,00         |  |
|                                                 | 1000 ~4700                                          | 0,65      | 0,85  | 0,95  | 1,00 | 1,00         |  |

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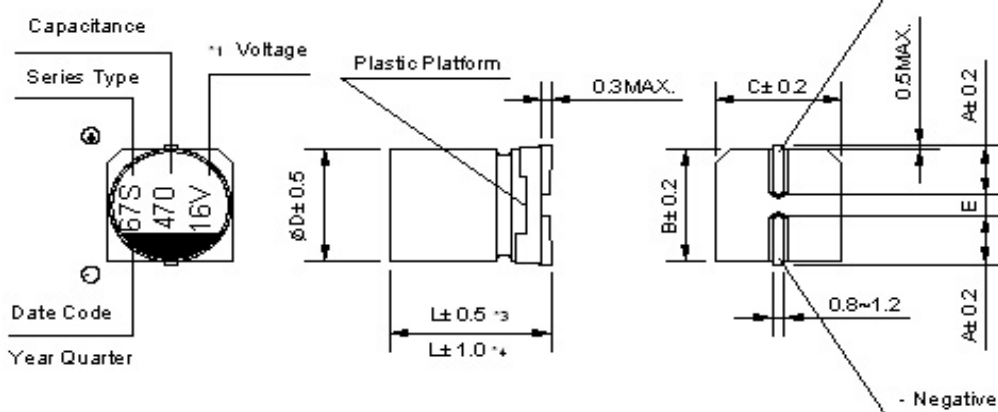
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## Technical Drawing

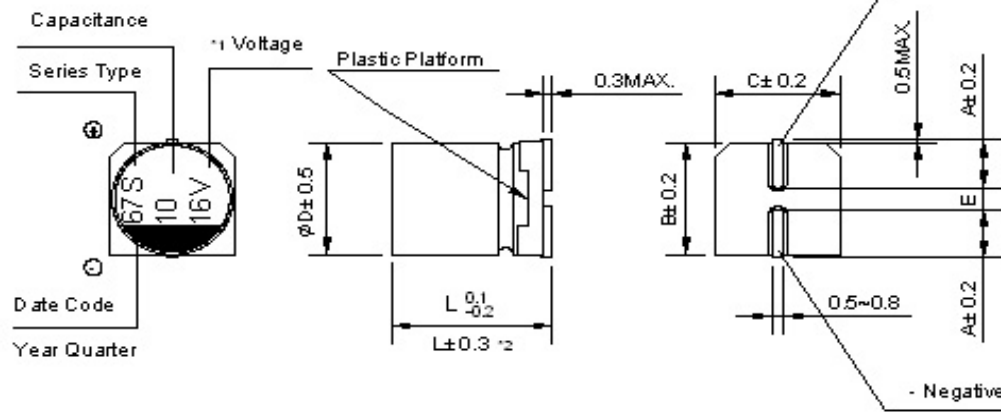
### Dimension of Size Ø 8x10,5 ~ 16mm

(Ø 8x10,5~Ø 16)



### Dimension of Size Ø 4~ 8x6,2mm

(Ø 4~Ø 8x6.2)



| D x L    | Ø 4 x 5,4 | Ø 5 x 5,4 | Ø 6,3 x 5,4 | Ø 6,3 x 7,7 | Ø 8 x 6,2 | Ø 8 x 10,5 | Ø 10 x 10,5 | Ø 10 x 13,5 | Ø 12,5 x 13,5 | Ø 12,5 x 16 | Ø 16 x 16,5 |
|----------|-----------|-----------|-------------|-------------|-----------|------------|-------------|-------------|---------------|-------------|-------------|
| A        | 2,0       | 2,2       | 2,6         | 2,6         | 3,4       | 3,0        | 3,3         | 3,3         | 4,9           | 4,9         | 5,8         |
| B        | 4,3       | 5,3       | 6,6         | 6,6         | 8,4       | 8,4        | 10,4        | 10,4        | 13,0          | 13,0        | 17,0        |
| C        | 4,3       | 5,3       | 6,6         | 6,6         | 8,4       | 8,4        | 10,4        | 10,4        | 13,0          | 13,0        | 17,0        |
| E +/-0.2 | 1,0       | 1,3       | 1,9         | 1,9         | 2,3       | 3,1        | 4,7         | 4,7         | 4,7           | 4,7         | 6,4         |
| L        | 5,4       | 5,4       | 5,4         | 7,7         | 6,2       | 10,5       | 10,5        | 13,5        | 13,5          | 16,0        | 16,5        |

\*1 Voltage mark (6V) represents 6,3V for Ø 4 ~ 10mm

\*3 (L +/- 0.5) is applicable to Ø 8x10,5 ~ Ø 10mm

\*2 (L +/- 0.3) is applicable to Ø 6,3 ~ 7.7 and Ø 8 + 6,2mm

\*4 (L +/- 1.0) is applicable to Ø 12,5 ~ Ø 16mm

RE. Date code and series type -1st digit for Year 2nd digit for Quarter, 4 quarter codes in one year area 1,4,7,0

3rd character for Series S

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|                                                                          |
|--------------------------------------------------------------------------|
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|                                                                          |
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|--------------------------------------------------------------------------|

[illegible]

| Diameter ordering Code D | Code     |
|--------------------------|----------|
| 3mm                      | <b>3</b> |
| 4mm                      | <b>A</b> |
| 5mm                      | <b>B</b> |
| 6,3mm                    | <b>C</b> |
| 8mm                      | <b>E</b> |
| 10mm                     | <b>G</b> |
| 12,5mm                   | <b>I</b> |
| 16mm                     | <b>K</b> |

| Height ordering Code L | Code |
|------------------------|------|
| 4mm                    | A    |
| 5,4mm                  | 0    |
| 5,8mm                  | 1    |
| 6,2mm                  | 2    |
| 7,7mm                  | 3    |
| 10,5mm                 | 4    |
| 13,5mm                 | 5    |
| 16mm                   | 6    |
| 16,5mm                 | 7    |

|       |        |      |        |        |        |           |           |      |            |
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|                                 |               |
|---------------------------------|---------------|
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| Part No.:                       | <b>I15008</b> |
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## Ordering Informations

| Serie | Voltage Code | Tolerance Code | Range Code | Size Code D | Size Code L | Special function | ROHS | Packing Code |  |  |
|-------|--------------|----------------|------------|-------------|-------------|------------------|------|--------------|--|--|
|-------|--------------|----------------|------------|-------------|-------------|------------------|------|--------------|--|--|

|               |            |          |            |          |          |           |          |           |  |  |
|---------------|------------|----------|------------|----------|----------|-----------|----------|-----------|--|--|
| <b>I15008</b> | <b>250</b> | <b>M</b> | <b>152</b> | <b>I</b> | <b>7</b> | <b>XX</b> | <b>R</b> | <b>TR</b> |  |  |
|---------------|------------|----------|------------|----------|----------|-----------|----------|-----------|--|--|

|              |                |                     |                   |                   |                        |                                                      |                                                      |  |  |
|--------------|----------------|---------------------|-------------------|-------------------|------------------------|------------------------------------------------------|------------------------------------------------------|--|--|
| look table   | <b>M= ±20%</b> | Ordering Code Range | Look table Code D | Look table Code L | <b>XX=</b> No function | <b>R=</b> ROHS Conform<br><b>N=</b> NON ROHS Conform | <b>TR=</b> Tape Reel Packing<br><b>BU=</b> Bulk-Ware |  |  |
| Voltage Code |                |                     |                   |                   |                        |                                                      |                                                      |  |  |

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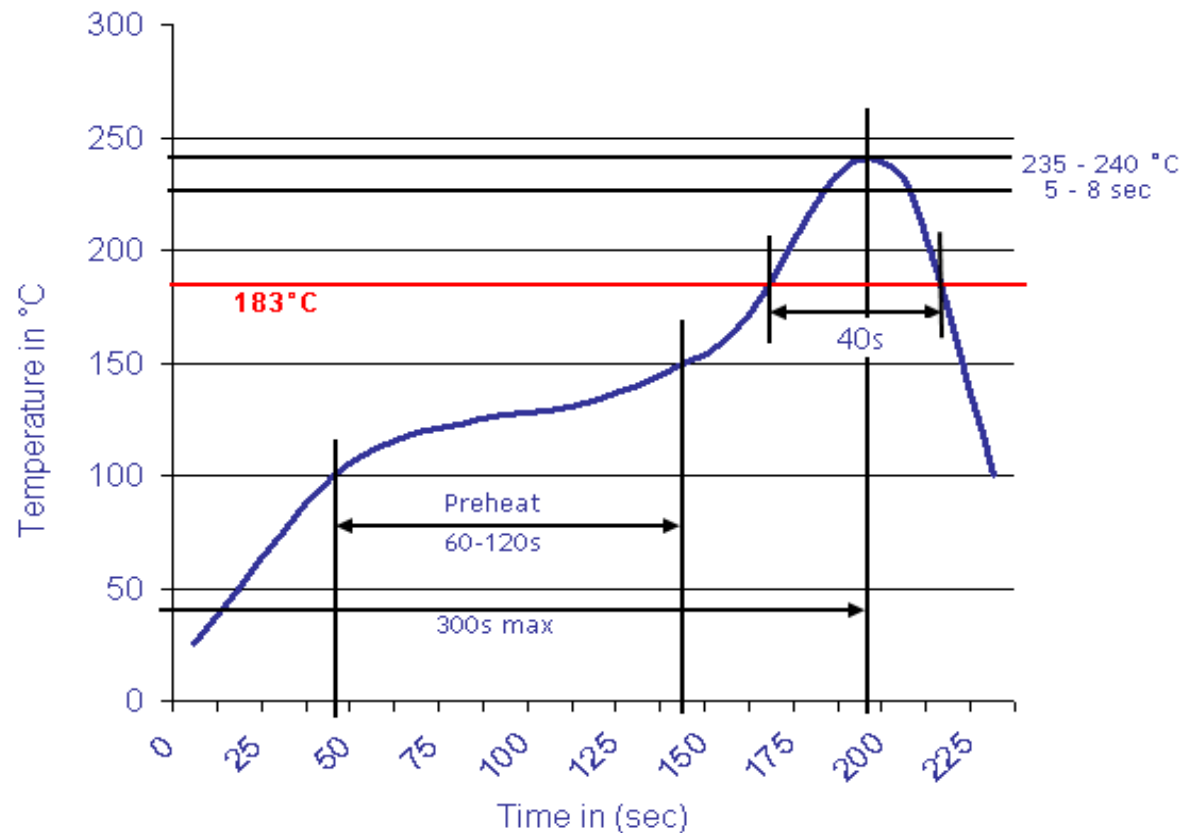


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## Soldering Profile Curve

### Classification Reflow Profile (JEDEC J-STD-020C)



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