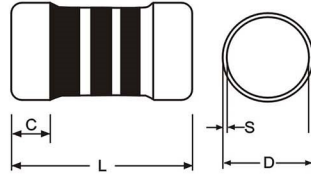




**MELF-MFR TYPE**



**Coating color: Blue.**

塗裝色: 藍色

**Dimensions:**

| Type     | Size | Dimensions(mm) |            |          |          |
|----------|------|----------------|------------|----------|----------|
|          |      | L              | D          | C        | S        |
| MELF-MFR | 0102 | 2.2+0/-0.1     | 1.1+0/-0.1 | 0.4±0.05 | 0.1±0.05 |
|          | 0204 | 3.5±0.2        | 1.45±0.1   | 0.7±0.1  | 0.15±0.1 |
|          | 0207 | 5.7±0.2        | 2.2±0.1    | 0.8±0.2  | 0.2±0.1  |
|          | 0309 | 8.5±0.3        | 3±0.3      | 1.7±0.2  | 0.3±0.1  |
|          | 0411 | 10.5±0.3       | 4±0.3      | 2.3±0.2  | 0.3±0.1  |
|          | 0515 | 14.5±0.3       | 4.5±0.3    | 2.3±0.2  | 0.3±0.1  |

**Range:**

| Type     | Size | POWER RATING | MAX. WORKING VOLTAGE | MAX. OVERLOAD VOLTAGE | T.C.R.                                | RESISTANCE RANGE      |                         |                         |                        |                         |                        |
|----------|------|--------------|----------------------|-----------------------|---------------------------------------|-----------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------------|
|          |      |              |                      |                       |                                       | ±0.1%                 | ±0.25%                  | ±0.5%                   | ±1%                    | ±5%                     |                        |
| MELF-MFR | 0102 | 1/8W<br>0.2W | 150V                 | 300V                  | ±15ppm<br>±25ppm<br>±50ppm<br>±100ppm | 50 <sub>Ω</sub> - 56K | 50 <sub>Ω</sub> - 100K  | 1 <sub>Ω</sub> - 1M     | 0 <sub>Ω</sub> 22 - 2M |                         |                        |
|          |      | 0204         |                      |                       |                                       | 1/8W                  | 150V                    | 300V                    | 100 <sub>Ω</sub> - 56K | 100 <sub>Ω</sub> - 100K | 1 <sub>Ω</sub> - 1M    |
|          | 0207 |              | 1/4W<br>0.4W         | 200V                  |                                       | 400V                  | 100 <sub>Ω</sub> - 56K  | 100 <sub>Ω</sub> - 100K | 1 <sub>Ω</sub> - 1M    | 0 <sub>Ω</sub> 5 - 2M   |                        |
|          |      | 0207         | 1/4W                 | 200V                  |                                       | 400V                  | ±50ppm                  | 100 <sub>Ω</sub> - 100K | 10 <sub>Ω</sub> - 560K | 1 <sub>Ω</sub> - 5M     | 0 <sub>Ω</sub> 22 - 5M |
|          | 1/2W |              | 300V                 | 600V                  |                                       | ±100ppm               | 100 <sub>Ω</sub> - 100K | 10 <sub>Ω</sub> - 560K  | 1 <sub>Ω</sub> - 5M    | 0 <sub>Ω</sub> 22 - 5M  |                        |
|          | 1W   |              | 400V                 | 700V                  |                                       | ±100ppm               | 100 <sub>Ω</sub> - 100K | 10 <sub>Ω</sub> - 560K  | 1 <sub>Ω</sub> - 5M    | 0 <sub>Ω</sub> 5 - 5M   |                        |
|          | 0309 | 1W           | 500V                 | 1000V                 |                                       | ±50ppm<br>±100ppm     | -----                   | 10 <sub>Ω</sub> - 100K  | 1 <sub>Ω</sub> - 1M    | 0.1 <sub>Ω</sub> - 1M   |                        |
|          | 0411 | 2W           |                      |                       |                                       |                       | -----                   | 10 <sub>Ω</sub> - 100K  | 1 <sub>Ω</sub> - 1M    | 0.1 <sub>Ω</sub> - 1M   |                        |
|          | 0515 | 3W           |                      |                       |                                       |                       | -----                   | 10 <sub>Ω</sub> - 100K  | 1 <sub>Ω</sub> - 1M    | 0.1 <sub>Ω</sub> - 1M   |                        |
|          |      |              |                      |                       |                                       |                       | -----                   | 10 <sub>Ω</sub> - 100K  | 1 <sub>Ω</sub> - 1M    | 0.1 <sub>Ω</sub> - 1M   |                        |

額定電壓是以， $\sqrt{\text{功率(W)} \times \text{阻值}(\Omega)}$  計算所得的值及以規格表中所列最高使用電壓兩者相較小者。

Rated-Voltage =  $\sqrt{P(W) \times R(\Omega)}$  or Max.working voltage, whichever lower.

### PATTERN STYLES FOR MELF RESISTORS



| TYPE/SIZE | WAVE SOLDERING |        |        |        | REFLOW SOLDERING |        |        |        |
|-----------|----------------|--------|--------|--------|------------------|--------|--------|--------|
|           | G (mm)         | Y (mm) | X (mm) | Z (mm) | G (mm)           | Y (mm) | X (mm) | Z (mm) |
| MMU 0102  | 0.7            | 1.2    | 1.5    | 3.1    | 1.1              | 0.8    | 1.3    | 2.7    |
| MMA 0204  | 1.5            | 1.5    | 1.8    | 4.5    | 1.7              | 1.2    | 1.6    | 4.1    |
| MMB 0207  | 2.8            | 2.1    | 2.6    | 7.0    | 3.2              | 1.7    | 2.4    | 6.6    |

#### Notes

• The given solder pad dimensions reflect the considerations for board design and assembly as outlined e.g. in standards IEC 61188-5-x<sup>(1)</sup>, or in publication IPC-7351

<sup>(1)</sup> The quoted IEC standards are also released as EN standards with the same number and identical contents

## Characteristics

| Item                                     | Characteristics                                                                                                    | Test Method                                                                                                  |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 1. Operating Temp. Range<br>使用温度范围       | -55°C ~ 155°C                                                                                                      |                                                                                                              |
| 2. Temperature Coefficient<br>温度系数       | ±100ppm/°C ; ±50ppm/°C<br>±25ppm/°C ; ±15ppm/°C                                                                    | JIS-C-5202; 5.2                                                                                              |
| 3. Short time overload<br>短时间过负载         | ±(0.5%+0.05Ω)                                                                                                      | Rating voltage×2.5 or Max. overload voltage for 5 sec. Whichever less                                        |
| 4. Pulse overload<br>断续过负载               | ±(0.5%+0.05Ω)                                                                                                      | Rating voltage×3 or Max. pulse overload voltage for 10,000 cycle (1 sec. "on" 25 sec. "off"), Whichever less |
| 5. Temperature cycling<br>温度周率           | ±(0.5%+0.05Ω)                                                                                                      | -55°C(30min.)+85°C(30min.) for 5 cycle                                                                       |
| 6. Load Life in Humidity<br>耐湿负载         | ±(1%+0.05Ω)                                                                                                        | 40°C±2°C, 90%~95% RH, 1000h, 1.5h "on"/0.5h "off" cycle                                                      |
| 7. Load Life<br>寿命负载                     | ±(1%+0.05Ω)                                                                                                        | 70°C±2°C, 1000h, 1.5h "on"/0.5h "off" cycle                                                                  |
| 8. Resistance to soldering heat<br>焊接耐热性 | ±(0.5%+0.05Ω)                                                                                                      | 260°C±5°C, 5 sec±1 sec                                                                                       |
| 9. Solderability<br>焊接性                  | 90% Coverage/Min                                                                                                   | 235°C±5°C, 2 sec±0.5 sec                                                                                     |
| 10. Bending test<br>端子强度                 | ±(0.5%+0.05Ω)                                                                                                      | Holding point width 90mm, Bending 5mm, 1 time                                                                |
| 11. Non-Combustibility<br>不燃性            | The resistors shall withstand Overload test in accordance With Article UL-94, V-0 without producing a fire hazard. |                                                                                                              |

## Classification (Part No)

MELF-MFR 0207 1/2WS 121Ω F T 50  
 STYLE SIZE POWER RESISTANCE TOLERANCE PACKING PPM

F = ±1%      T = Tape/Reel      15  
 D = ±0.5%      B = Bulk      25  
 C = ±0.25%      50  
 B = ±0.1%      100  
 J = ±5%

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [MELF Resistors](#) category:*

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

Other Similar products are found below :

[MMA02040E4709BB100](#) [1-21002-2](#) [SMA0207JTEU8202](#) [2312 195 11009](#) [CSR0207FTDT0150](#) [CSR0207FTDT0220](#)

[CSR0207FTDT0330](#) [CSR0207FTDT0470](#) [CSR0207FTDT0680](#) [CSR0207FTDT1001](#) [CSR0207FTDT1002](#) [CSR0207FTDT1003](#)

[CSR0207FTDT1500](#) [CSR0207FTDT1501](#) [CSR0207FTDT1502](#) [CSR0207FTDT1503](#) [CSR0207FTDT1504](#) [CSR0207FTDT1960](#)

[CSR0207FTDT2200](#) [CSR0207FTDT2201](#) [CSR0207FTDT2202](#) [CSR0207FTDT2203](#) [CSR0207FTDT2204](#) [CSR0207FTDT3300](#)

[CSR0207FTDT3303](#) [CSR0207FTDT3304](#) [CSR0207FTDT3921](#) [CSR0207FTDT4700](#) [CSR0207FTDT4702](#) [CSR0207FTDT5603](#)

[CSR0207FTDT6800](#) [CSR0207FTDT6801](#) [CSR0207FTDT6802](#) [CSR0207FTDT6803](#) [CSR0207FTDT8201](#) [CSR0207FTDU0100](#)

[CSR0207FTDU0220](#) [CSR0207FTDU0470](#) [CSR0207FTDU1001](#) [CSR0207FTDU1002](#) [CSR0207FTDU1003](#) [CSR0207FTDU2201](#)

[CSR0207FTDU2202](#) [CSR0207FTDU2203](#) [CSR0207FTDU2204](#) [CSR0207FTDU2210](#) [CSR0207FTDU4700](#) [CSR0207FTDU4701](#)

[CSR0207FTDU4702](#) [CSR0207FTDU4703](#)