

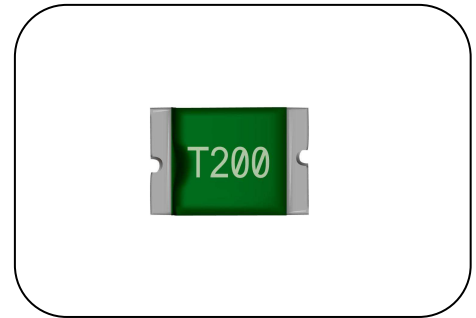
# Polymer PTC Resettable Fuse: KMC Series



## SMD Type

### ■ Features

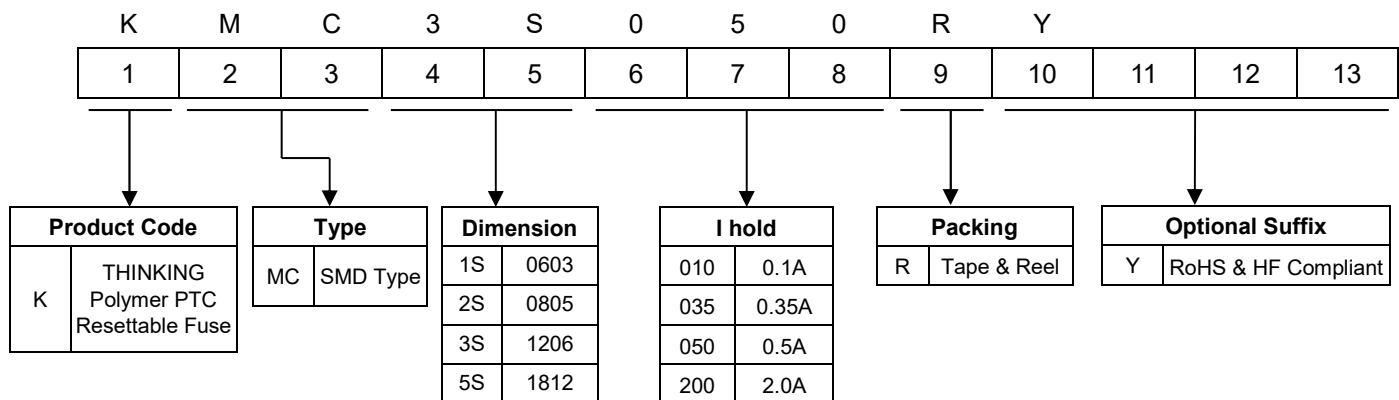
1. RoHS & Halogen-Free (HF) compliant
2. EIA size: 0603, 0805, 1206, 1812
3. Hold current ratings from 0.05A to 3A
4. Voltage ratings from 6V computer and electronic applications to 60V
5. Small footprint
6. Fast time to trip
7. Operating & storage temperature range: -40~+85°C
8. Agency approval: UL / cUL / TUV



### ■ Recommended Applications

1. USB, HDMI, IEEE 1394 interface
2. PC, Motherboard, NB, Tablet
3. Mobile phone
4. Digital cameras
5. Telecommunication
6. Consumer device

### ■ Part Number Code

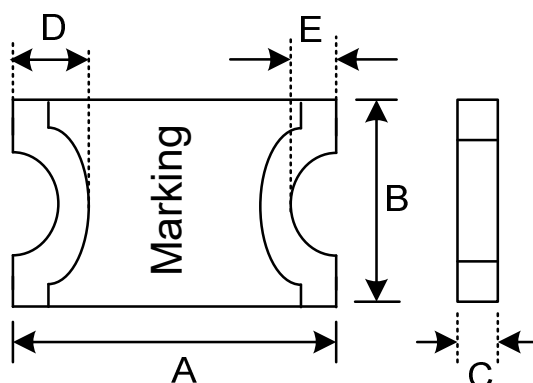


# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ Structure & Dimensions



(Unit: mm)

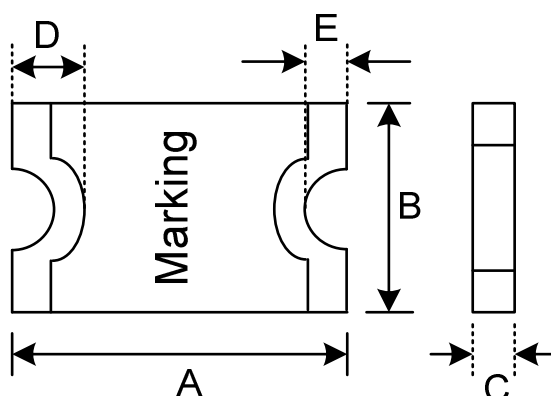
| Part No.    | A      |        | B      |        | C      |        | D      |        | E      |        |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) |
| KMC1S010    | 1.40   | 1.80   | 0.60   | 1.00   | 0.30   | 0.55   | 0.15   | 0.50   | --     | 0.40   |
| KMC1S020    |        |        |        |        | 0.30   | 0.55   |        |        |        |        |
| KMC1S025    |        |        |        |        | 0.30   | 0.55   |        |        |        |        |
| KMC1S035    |        |        |        |        | 0.50   | 0.70   |        |        |        |        |
| KMC2S010    | 2.00   | 2.20   | 1.20   | 1.50   | 0.40   | 0.85   | 0.15   | 0.55   | 0.05   | 0.45   |
| KMC2S010-24 |        |        |        |        | 0.40   | 0.85   |        |        |        |        |
| KMC2S020    |        |        |        |        | 0.40   | 0.85   |        |        |        |        |
| KMC2S035    |        |        |        |        | 0.30   | 0.75   |        |        |        |        |
| KMC2S050    |        |        |        |        | 0.30   | 0.85   |        |        |        |        |
| KMC2S075    |        |        |        |        | 0.50   | 0.85   |        |        |        |        |
| KMC2S110    |        |        |        |        | 0.50   | 0.90   |        |        |        |        |

# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ Structure & Dimensions



(Unit: mm)

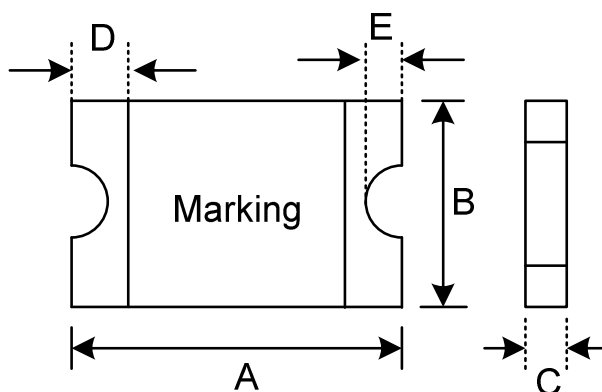
| Part No.    | A      |        | B      |        | C      |        | D      |        | E      |        |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) |
| KMC3S005    | 3.00   | 3.50   | 1.50   | 1.80   | 0.50   | 0.90   | 0.125  | 0.75   | 0.08   | 0.45   |
| KMC3S010    |        |        |        |        | 0.50   | 0.90   |        |        |        |        |
| KMC3S012    |        |        |        |        | 0.35   | 0.75   |        |        |        |        |
| KMC3S016    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC3S020    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC3S025    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC3S035    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC3S050    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC3S050-15 |        |        |        |        | 0.28   | 1.06   |        |        |        |        |
| KMC3S075    |        |        |        |        | 0.28   | 0.75   |        |        |        |        |
| KMC3S100    |        |        |        |        | 0.40   | 0.88   |        |        |        |        |
| KMC3S110    |        |        |        |        | 0.40   | 0.88   |        |        |        |        |
| KMC3S150    |        |        |        |        | 0.55   | 1.35   |        |        |        |        |
| KMC3S200    |        |        |        |        | 0.80   | 1.35   |        |        |        |        |

# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ Structure & Dimensions



(Unit: mm)

| Part No.    | A      |        | B      |        | C      |        | D      |        | E      |        |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) | (Min.) | (Max.) |
| KMC5S010    | 4.37   | 4.73   | 3.07   | 3.41   | 0.50   | 0.90   | 0.20   | 1.2    | 0.15   | 0.65   |
| KMC5S014    |        |        |        |        | 0.50   | 0.90   |        |        |        |        |
| KMC5S020    |        |        |        |        | 0.50   | 0.90   |        |        |        |        |
| KMC5S035    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S050    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S075    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S075-24 |        |        |        |        | 0.60   | 1.20   |        |        |        |        |
| KMC5S075-33 |        |        |        |        | 0.60   | 1.20   |        |        |        |        |
| KMC5S110    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S110-16 |        |        |        |        | 0.60   | 1.00   |        |        |        |        |
| KMC5S110-24 |        |        |        |        | 0.60   | 1.00   |        |        |        |        |
| KMC5S110-33 |        |        |        |        | 0.80   | 1.60   |        |        |        |        |
| KMC5S125    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S125-16 |        |        |        |        | 0.30   | 1.25   |        |        |        |        |
| KMC5S150    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S150-12 |        |        |        |        | 0.60   | 1.00   |        |        |        |        |
| KMC5S150-24 |        |        |        |        | 0.70   | 1.50   |        |        |        |        |
| KMC5S160    |        |        |        |        | 0.28   | 0.68   |        |        |        |        |
| KMC5S200    |        |        |        |        | 0.35   | 0.85   |        |        |        |        |
| KMC5S200-16 |        |        |        |        | 0.80   | 1.60   |        |        |        |        |
| KMC5S260    | 0.35   | 0.90   |        |        |        |        |        |        |        |        |
| KMC5S260-16 | 0.35   | 2.00   |        |        |        |        |        |        |        |        |
| KMC5S300    | 0.60   | 1.20   |        |        |        |        |        |        |        |        |

# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ Electrical Characteristics at 23°C

| Part No.    | Marking | V <sub>max.</sub>  | I <sub>max.</sub> | I <sub>hold</sub> | I <sub>trip</sub> | Pd<br>(Max.) | Maximum<br>Time to Trip |                | Resistance |                 | Safety<br>Approvals |     |
|-------------|---------|--------------------|-------------------|-------------------|-------------------|--------------|-------------------------|----------------|------------|-----------------|---------------------|-----|
|             |         |                    |                   |                   |                   |              | Current<br>(A)          | Time<br>(Sec.) | Initial Ri | Post Trip<br>R1 | UL/cUL              | TUV |
|             |         | (V <sub>dc</sub> ) | (A)               | (A)               | (A)               | (W)          |                         |                | Min. (Ω)   | Max. (Ω)        |                     |     |
| KMC1S010    | 1       | 15                 | 40                | 0.10              | 0.30              | 0.50         | 0.50                    | 1.00           | 0.900      | 6.000           | √                   | √   |
| KMC1S020    | 2       | 9                  | 40                | 0.20              | 0.50              | 0.50         | 1.00                    | 0.60           | 0.550      | 3.500           | √                   | √   |
| KMC1S025    | 5       | 9                  | 40                | 0.25              | 0.55              | 0.50         | 8.00                    | 0.08           | 0.500      | 3.000           | √                   | √   |
| KMC1S035    | 7       | 6                  | 40                | 0.35              | 0.75              | 0.50         | 8.00                    | 0.10           | 0.200      | 1.000           | √                   | √   |
| KMC2S010    | D       | 15                 | 100               | 0.10              | 0.30              | 0.50         | 0.50                    | 1.50           | 1.000      | 6.000           | √                   | √   |
| KMC2S010-24 | D       | 24                 | 100               | 0.10              | 0.30              | 0.50         | 0.50                    | 1.50           | 1.000      | 6.000           | √                   | √   |
| KMC2S020    | L       | 9                  | 100               | 0.20              | 0.50              | 0.50         | 8.00                    | 0.02           | 0.650      | 3.500           | √                   | √   |
| KMC2S035    | T       | 6                  | 100               | 0.35              | 0.75              | 0.50         | 8.00                    | 0.10           | 0.250      | 1.200           | √                   | √   |
| KMC2S050    | O       | 6                  | 100               | 0.50              | 1.00              | 0.50         | 8.00                    | 0.10           | 0.150      | 0.850           | √                   | √   |
| KMC2S075    | X       | 6                  | 100               | 0.75              | 1.50              | 0.50         | 8.00                    | 0.20           | 0.090      | 0.350           | √                   | √   |
| KMC2S110    | V       | 6                  | 40                | 1.10              | 2.00              | 0.60         | 8.00                    | 0.30           | 0.060      | 0.210           | √                   |     |
| KMC3S005    | TH      | 60                 | 100               | 0.05              | 0.15              | 0.40         | 0.25                    | 1.50           | 3.600      | 50.000          | √                   | √   |
| KMC3S010    | TY      | 60                 | 100               | 0.10              | 0.25              | 0.40         | 0.50                    | 1.00           | 1.600      | 15.000          | √                   | √   |
| KMC3S012    | TJ      | 30                 | 100               | 0.125             | 0.29              | 0.50         | 1.00                    | 0.20           | 1.400      | 6.000           | √                   |     |
| KMC3S016    | TK      | 30                 | 100               | 0.16              | 0.37              | 0.50         | 1.00                    | 0.30           | 1.100      | 4.500           | √                   | √   |
| KMC3S020    | TL      | 24                 | 100               | 0.20              | 0.42              | 0.60         | 8.00                    | 0.10           | 0.650      | 2.600           | √                   |     |
| KMC3S025    | TN      | 16                 | 100               | 0.25              | 0.50              | 0.60         | 8.00                    | 0.08           | 0.550      | 2.300           | √                   | √   |
| KMC3S035    | TP      | 16                 | 100               | 0.35              | 0.75              | 0.60         | 8.00                    | 0.10           | 0.300      | 1.200           | √                   | √   |
| KMC3S050    | TQ      | 8                  | 100               | 0.50              | 1.00              | 0.60         | 8.00                    | 0.10           | 0.150      | 0.700           | √                   | √   |
| KMC3S050-15 | TQ1     | 15                 | 100               | 0.50              | 1.00              | 0.90         | 8.00                    | 0.10           | 0.150      | 0.700           | √                   | √   |
| KMC3S075    | TR      | 8                  | 100               | 0.75              | 1.50              | 0.60         | 8.00                    | 0.10           | 0.100      | 0.290           | √                   | √   |
| KMC3S100    | TS      | 6                  | 100               | 1.00              | 1.80              | 0.80         | 8.00                    | 0.30           | 0.065      | 0.210           | √                   | √   |
| KMC3S110    | TU      | 8                  | 100               | 1.10              | 2.20              | 0.80         | 8.00                    | 0.10           | 0.070      | 0.200           | √                   | √   |
| KMC3S150    | TV      | 8                  | 100               | 1.50              | 3.00              | 0.80         | 8.00                    | 0.30           | 0.040      | 0.120           | √                   | √   |
| KMC3S200    | TX      | 6                  | 100               | 2.00              | 3.50              | 1.00         | 8.00                    | 1.50           | 0.020      | 0.080           | √                   | √   |

Note : UL&cUL File No: E138827

TUV File No: R50143386 , J50218395

# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ Electrical Characteristics at 23°C

| Part No.    | Marking                        | Vmax.              | Imax. | Ihold | Itrip | Pd<br>(Max.) | Maximum<br>Time to Trip |                | Resistance |                 | Safety<br>Approvals |     |
|-------------|--------------------------------|--------------------|-------|-------|-------|--------------|-------------------------|----------------|------------|-----------------|---------------------|-----|
|             |                                |                    |       |       |       |              | Current<br>(A)          | Time<br>(Sec.) | Initial Ri | Post Trip<br>R1 | UL/cUL              | TUV |
|             |                                | (V <sub>dc</sub> ) | (A)   | (A)   | (A)   | (W)          |                         |                | Min. (Ω)   | Max.(Ω)         |                     |     |
| KMC5S010    | T 010                          | 30                 | 100   | 0.10  | 0.30  | 0.80         | 0.50                    | 1.50           | 1.600      | 15.000          | √                   | √   |
| KMC5S014    | T 014                          | 60                 | 10    | 0.14  | 0.34  | 0.80         | 1.50                    | 0.15           | 1.500      | 6.000           | √                   | √   |
| KMC5S020    | T 020                          | 30                 | 100   | 0.20  | 0.40  | 0.80         | 8.00                    | 0.02           | 0.800      | 5.000           | √                   | √   |
| KMC5S035    | T 035                          | 16                 | 100   | 0.35  | 0.70  | 0.80         | 8.00                    | 0.10           | 0.320      | 1.500           | √                   | √   |
| KMC5S050    | T 050                          | 16                 | 100   | 0.50  | 1.00  | 0.80         | 8.00                    | 0.15           | 0.150      | 1.000           | √                   | √   |
| KMC5S075    | T 075                          | 16                 | 100   | 0.75  | 1.50  | 0.80         | 8.00                    | 0.20           | 0.110      | 0.450           | √                   | √   |
| KMC5S075-24 | T <sup>075</sup> <sub>24</sub> | 24                 | 100   | 0.75  | 1.50  | 1.0          | 8.00                    | 0.20           | 0.110      | 0.400           | √                   | √   |
| KMC5S075-33 | T <sup>075</sup> <sub>33</sub> | 33                 | 20    | 0.75  | 1.50  | 1.2          | 8.00                    | 0.20           | 0.110      | 0.400           | √                   | √   |
| KMC5S110    | T 110                          | 8                  | 100   | 1.10  | 2.20  | 0.80         | 8.00                    | 0.30           | 0.040      | 0.210           | √                   | √   |
| KMC5S110-16 | T <sup>110</sup> <sub>16</sub> | 16                 | 100   | 1.10  | 2.20  | 1.0          | 8.00                    | 0.50           | 0.060      | 0.180           | √                   | √   |
| KMC5S110-24 | T <sup>110</sup> <sub>24</sub> | 24                 | 20    | 1.10  | 2.20  | 1.2          | 8.00                    | 0.50           | 0.060      | 0.200           | √                   | √   |
| KMC5S110-33 | T <sup>110</sup> <sub>33</sub> | 33                 | 20    | 1.10  | 2.20  | 1.2          | 8.00                    | 0.50           | 0.060      | 0.200           | √                   | √   |
| KMC5S125    | T 125                          | 6                  | 100   | 1.25  | 2.50  | 0.80         | 8.00                    | 0.40           | 0.050      | 0.140           | √                   | √   |
| KMC5S125-16 | T <sup>125</sup> <sub>16</sub> | 16                 | 100   | 1.25  | 2.50  | 1.0          | 8.00                    | 0.40           | 0.050      | 0.140           | √                   | √   |
| KMC5S150    | T 150                          | 8                  | 100   | 1.50  | 3.00  | 0.90         | 8.00                    | 0.30           | 0.040      | 0.110           | √                   | √   |
| KMC5S150-12 | T <sup>150</sup> <sub>12</sub> | 12                 | 100   | 1.50  | 3.00  | 1.0          | 8.00                    | 0.50           | 0.040      | 0.110           | √                   | √   |
| KMC5S150-24 | T <sup>150</sup> <sub>24</sub> | 24                 | 20    | 1.50  | 3.00  | 1.2          | 8.00                    | 1.50           | 0.040      | 0.120           | √                   | √   |
| KMC5S160    | T 160                          | 8                  | 100   | 1.60  | 3.20  | 0.80         | 8.00                    | 1.00           | 0.030      | 0.100           | √                   | √   |
| KMC5S200    | T 200                          | 8                  | 100   | 2.00  | 3.50  | 1.20         | 8.00                    | 2.00           | 0.020      | 0.060           | √                   | √   |
| KMC5S200-16 | T 200                          | 16                 | 100   | 2.00  | 3.50  | 1.20         | 8.00                    | 2.00           | 0.020      | 0.060           | √                   |     |
| KMC5S260    | T 260                          | 8                  | 100   | 2.60  | 5.00  | 1.20         | 8.00                    | 2.50           | 0.015      | 0.047           | √                   | √   |
| KMC5S260-16 | T 260                          | 16                 | 100   | 2.60  | 5.00  | 1.5          | 8.00                    | 5.0            | 0.015      | 0.050           | √                   |     |
| KMC5S300    | T 300                          | 6                  | 100   | 3.00  | 5.00  | 1.20         | 8.00                    | 4.00           | 0.012      | 0.040           | √                   | √   |

Note : UL&cUL File No: E138827

TUV File No: R50143386 , J50218395

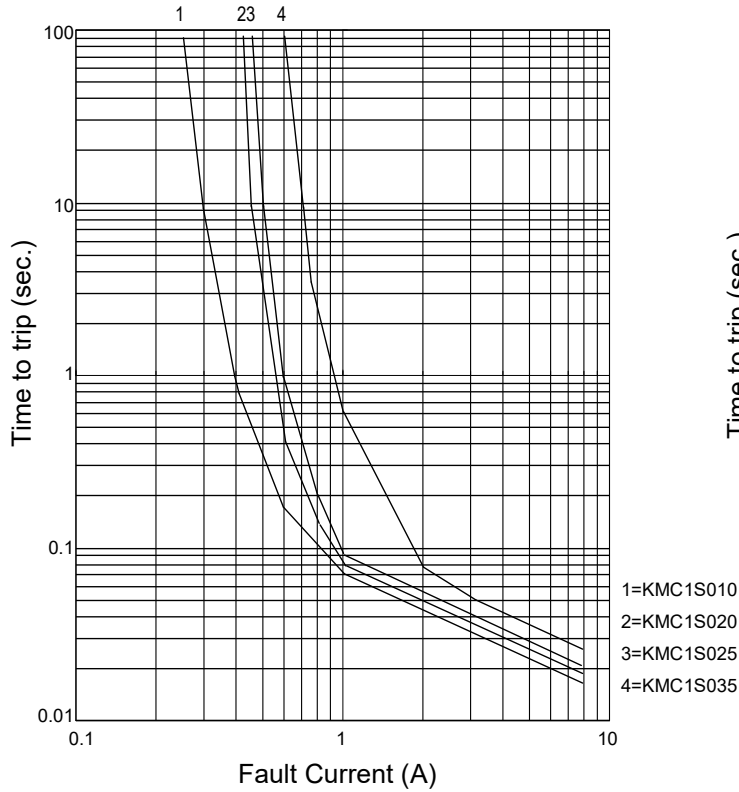
# Polymer PTC Resettable Fuse: KMC Series

## SMD Type

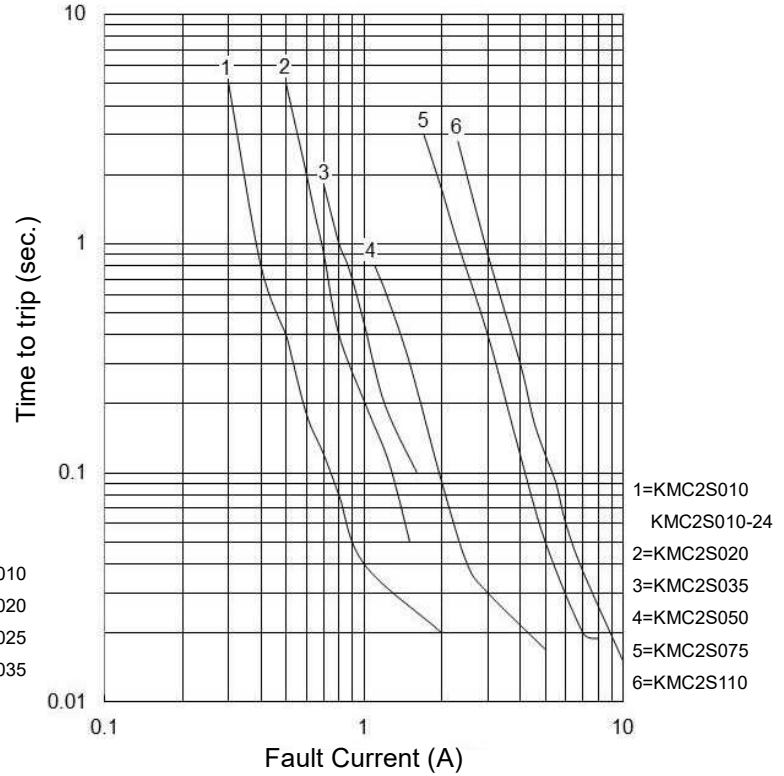


### Typical Time to Trip Curve at 23°C

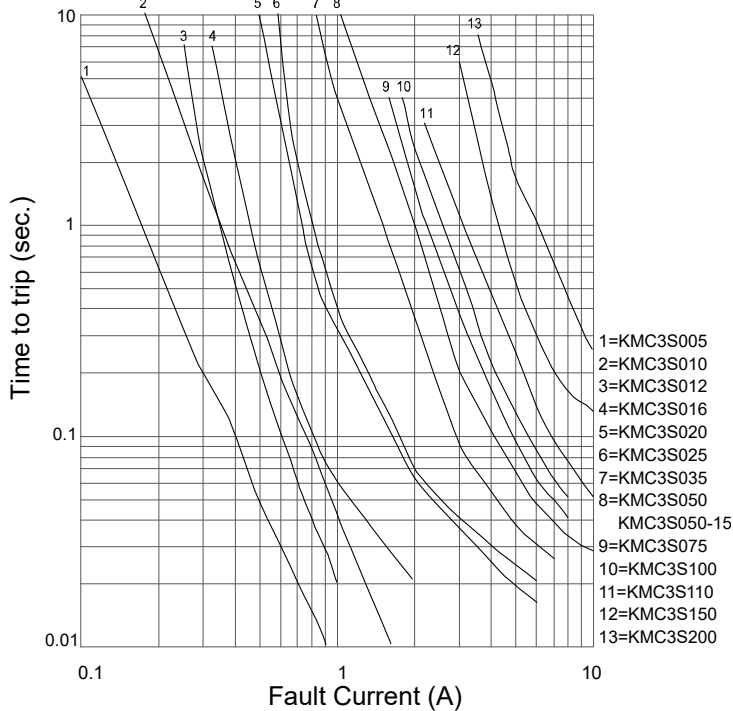
#### KMC1S: 0603 Series



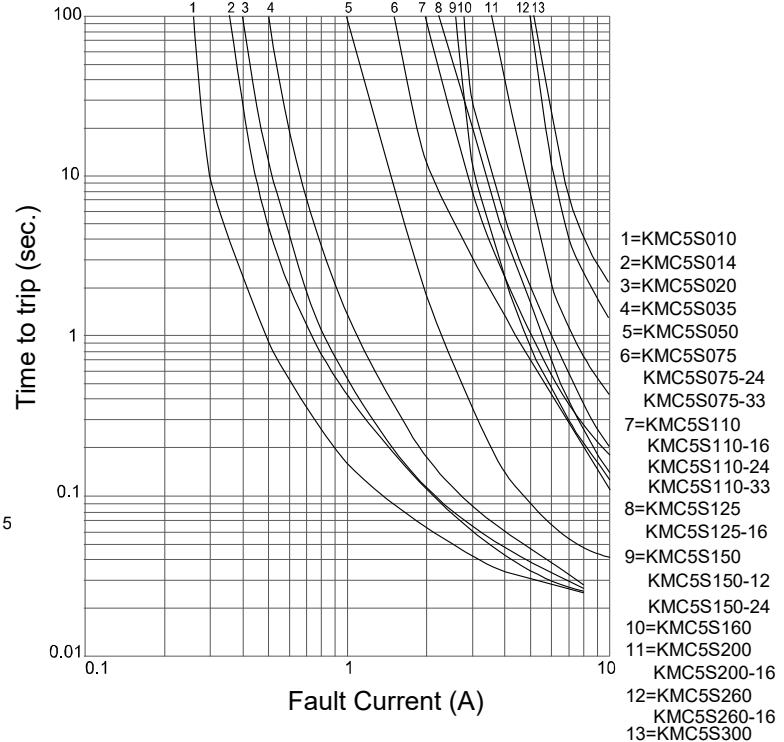
#### KMC2S: 0805 Series



#### KMC3S: 1206 Series



#### KMC5S: 1812 Series



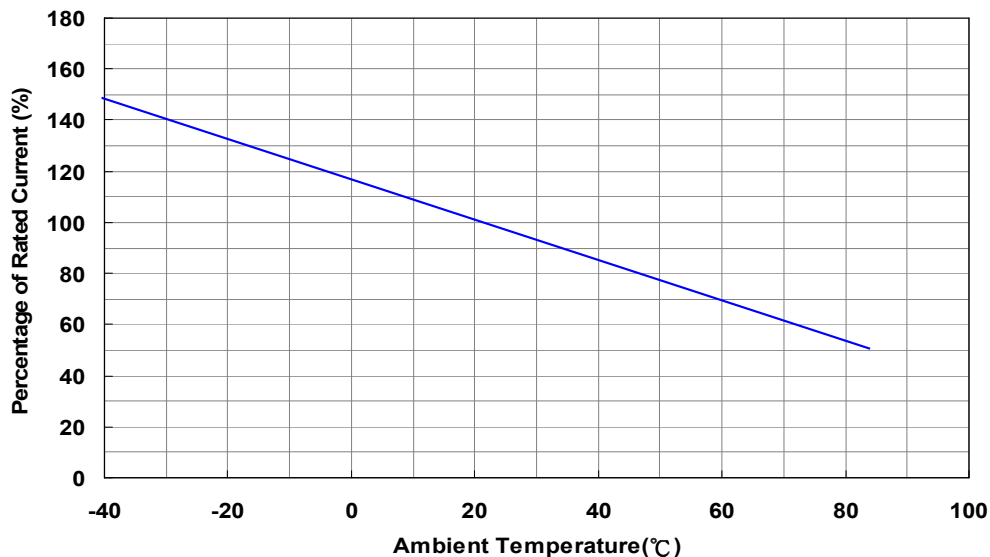
# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ KMC1S (0603) Series Ihold & Itrip Thermal Derating Curve

Derating Curve for KMC1S (0603) Series



KMC1S (0603) Series Ihold Thermal Derating Chart

(Unit: A)

| Part No. | Ambient Temperature |       |      |             |      |      |      |      |      |
|----------|---------------------|-------|------|-------------|------|------|------|------|------|
|          | -40°C               | -20°C | 0°C  | 23°C        | 40°C | 50°C | 60°C | 70°C | 85°C |
| KMC1S010 | 0.13                | 0.12  | 0.11 | <b>0.10</b> | 0.08 | 0.07 | 0.06 | 0.05 | 0.03 |
| KMC1S020 | 0.27                | 0.25  | 0.23 | <b>0.20</b> | 0.17 | 0.14 | 0.12 | 0.10 | 0.07 |
| KMC1S025 | 0.32                | 0.29  | 0.27 | <b>0.25</b> | 0.21 | 0.18 | 0.16 | 0.14 | 0.10 |
| KMC1S035 | 0.47                | 0.41  | 0.38 | <b>0.35</b> | 0.29 | 0.26 | 0.24 | 0.20 | 0.14 |

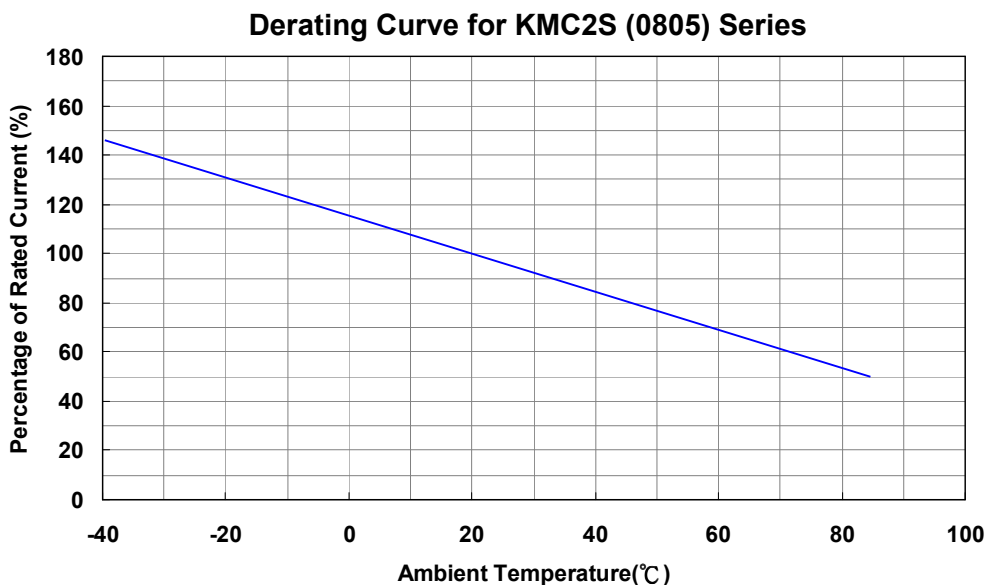


# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ KMC2S (0805) Series Ihold & Itrip Thermal Derating Curve



### KMC2S (0805) Series Ihold Thermal Derating Chart

(Unit: A)

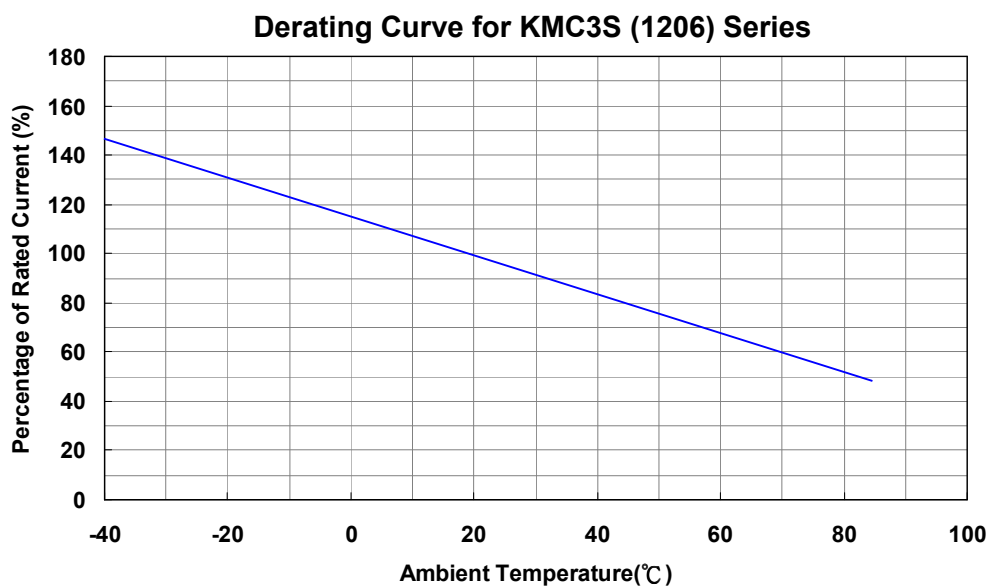
| Part No.    | Ambient Temperature |       |      |             |      |      |      |      |      |
|-------------|---------------------|-------|------|-------------|------|------|------|------|------|
|             | -40°C               | -20°C | 0°C  | 23°C        | 40°C | 50°C | 60°C | 70°C | 85°C |
| KMC2S010    | 0.14                | 0.12  | 0.11 | <b>0.10</b> | 0.08 | 0.07 | 0.06 | 0.05 | 0.03 |
| KMC2S010-24 | 0.14                | 0.12  | 0.11 | <b>0.10</b> | 0.08 | 0.07 | 0.06 | 0.05 | 0.03 |
| KMC2S020    | 0.28                | 0.25  | 0.23 | <b>0.20</b> | 0.17 | 0.14 | 0.12 | 0.10 | 0.07 |
| KMC2S035    | 0.47                | 0.44  | 0.39 | <b>0.35</b> | 0.30 | 0.27 | 0.24 | 0.20 | 0.14 |
| KMC2S050    | 0.68                | 0.62  | 0.55 | <b>0.50</b> | 0.40 | 0.37 | 0.33 | 0.29 | 0.23 |
| KMC2S075    | 1.00                | 0.90  | 0.79 | <b>0.75</b> | 0.63 | 0.57 | 0.53 | 0.41 | 0.34 |
| KMC2S110    | 1.55                | 1.32  | 1.26 | <b>1.10</b> | 0.93 | 0.85 | 0.77 | 0.67 | 0.55 |

# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### ■ KMC3S (1206) Series Ihold & Itrip Thermal Derating Curve



### ■ KMC3S (1206) Series Ihold Thermal Derating Chart

(Unit: A)

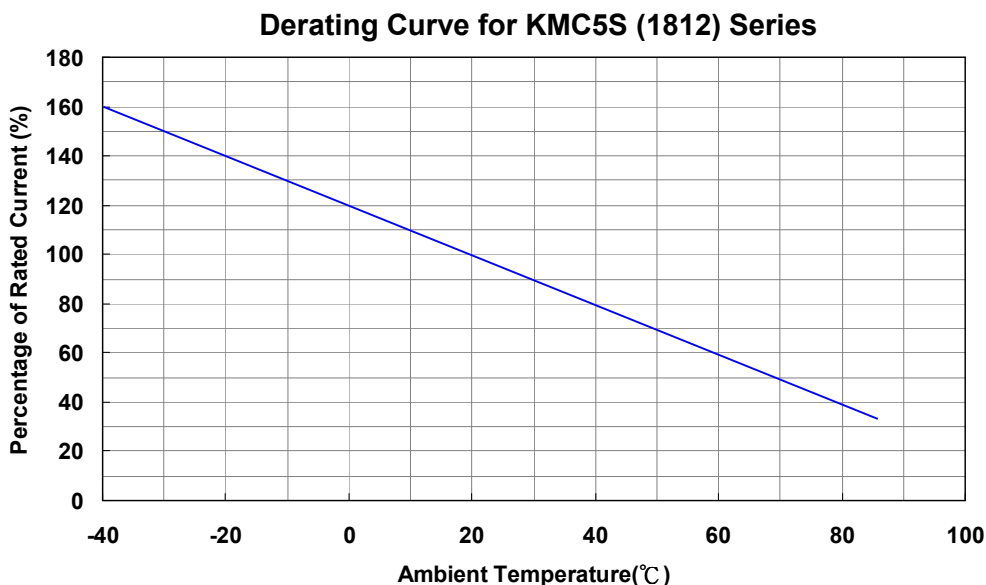
| Part no     | Ambient Temperature |       |       |             |       |       |       |      |       |
|-------------|---------------------|-------|-------|-------------|-------|-------|-------|------|-------|
|             | -40°C               | -20°C | 0°C   | 23°C        | 40°C  | 50°C  | 60°C  | 70°C | 85°C  |
| KMC3S005    | 0.0725              | 0.063 | 0.057 | <b>0.05</b> | 0.043 | 0.038 | 0.035 | 0.03 | 0.026 |
| KMC3S010    | 0.145               | 0.133 | 0.115 | <b>0.10</b> | 0.085 | 0.075 | 0.07  | 0.06 | 0.055 |
| KMC3S012    | 0.20                | 0.17  | 0.15  | <b>0.12</b> | 0.11  | 0.10  | 0.09  | 0.08 | 0.07  |
| KMC3S016    | 0.21                | 0.20  | 0.18  | <b>0.16</b> | 0.14  | 0.13  | 0.12  | 0.11 | 0.09  |
| KMC3S020    | 0.34                | 0.30  | 0.26  | <b>0.20</b> | 0.17  | 0.15  | 0.13  | 0.11 | 0.08  |
| KMC3S025    | 0.37                | 0.33  | 0.29  | <b>0.25</b> | 0.22  | 0.20  | 0.17  | 0.15 | 0.12  |
| KMC3S035    | 0.50                | 0.45  | 0.40  | <b>0.35</b> | 0.30  | 0.27  | 0.24  | 0.18 | 0.15  |
| KMC3S050    | 0.71                | 0.64  | 0.57  | <b>0.50</b> | 0.42  | 0.39  | 0.35  | 0.31 | 0.25  |
| KMC3S050-15 | 0.71                | 0.64  | 0.57  | <b>0.50</b> | 0.42  | 0.39  | 0.35  | 0.31 | 0.25  |
| KMC3S075    | 1.14                | 1.01  | 0.88  | <b>0.75</b> | 0.65  | 0.59  | 0.54  | 0.49 | 0.41  |
| KMC3S100    | 1.45                | 1.31  | 1.15  | <b>1.00</b> | 0.84  | 0.77  | 0.69  | 0.61 | 0.48  |
| KMC3S110    | 1.64                | 1.46  | 1.30  | <b>1.06</b> | 0.92  | 0.83  | 0.80  | 0.65 | 0.52  |
| KMC3S150    | 2.18                | 1.94  | 1.72  | <b>1.50</b> | 1.28  | 1.17  | 1.06  | 0.96 | 0.77  |
| KMC3S200    | 2.92                | 2.64  | 2.35  | <b>2.00</b> | 1.79  | 1.64  | 1.50  | 1.22 | 1.14  |

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### ■ KMC5S (1812) Series Ihold & Itrip Thermal Derating Curve



### ■ KMC5S (1812) Series Ihold Thermal Derating Chart

(Unit: A)

| Part no     | Ambient Temperature |       |      |             |      |      |      |      |      |
|-------------|---------------------|-------|------|-------------|------|------|------|------|------|
|             | -40°C               | -20°C | 0°C  | 23°C        | 40°C | 50°C | 60°C | 70°C | 85°C |
| KMC5S010    | 0.16                | 0.14  | 0.12 | <b>0.10</b> | 0.08 | 0.07 | 0.06 | 0.05 | 0.03 |
| KMC5S014    | 0.23                | 0.19  | 0.17 | <b>0.14</b> | 0.12 | 0.10 | 0.09 | 0.08 | 0.06 |
| KMC5S020    | 0.29                | 0.26  | 0.23 | <b>0.20</b> | 0.17 | 0.15 | 0.14 | 0.12 | 0.10 |
| KMC5S035    | 0.50                | 0.45  | 0.40 | <b>0.35</b> | 0.29 | 0.26 | 0.24 | 0.21 | 0.19 |
| KMC5S050    | 0.77                | 0.68  | 0.59 | <b>0.50</b> | 0.44 | 0.40 | 0.37 | 0.33 | 0.29 |
| KMC5S075    | 1.15                | 1.01  | 0.88 | <b>0.75</b> | 0.65 | 0.60 | 0.55 | 0.49 | 0.43 |
| KMC5S075-24 | 1.06                | 0.95  | 0.84 | <b>0.75</b> | 0.60 | 0.55 | 0.50 | 0.45 | 0.37 |
| KMC5S075-33 | 1.10                | 1.00  | 0.88 | <b>0.75</b> | 0.66 | 0.60 | 0.55 | 0.47 | 0.36 |
| KMC5S110    | 1.59                | 1.43  | 1.26 | <b>1.10</b> | 0.95 | 0.87 | 0.80 | 0.71 | 0.60 |
| KMC5S110-16 | 1.58                | 1.43  | 1.27 | <b>1.10</b> | 0.95 | 0.85 | 0.77 | 0.71 | 0.58 |
| KMC5S110-24 | 1.55                | 1.40  | 1.25 | <b>1.10</b> | 0.93 | 0.83 | 0.73 | 0.63 | 0.50 |
| KMC5S110-33 | 1.55                | 1.40  | 1.25 | <b>1.10</b> | 0.93 | 0.83 | 0.73 | 0.63 | 0.50 |
| KMC5S125    | 2.00                | 1.75  | 1.52 | <b>1.25</b> | 1.00 | 0.95 | 0.90 | 0.75 | 0.53 |
| KMC5S125-16 | 2.00                | 1.75  | 1.52 | <b>1.25</b> | 1.00 | 0.95 | 0.90 | 0.75 | 0.53 |
| KMC5S150    | 2.30                | 2.03  | 1.76 | <b>1.50</b> | 1.25 | 1.10 | 1.00 | 0.80 | 0.76 |
| KMC5S150-12 | 2.04                | 1.88  | 1.68 | <b>1.50</b> | 1.25 | 1.10 | 1.00 | 0.80 | 0.60 |
| KMC5S150-24 | 2.05                | 1.87  | 1.67 | <b>1.50</b> | 1.25 | 1.08 | 0.95 | 0.77 | 0.60 |
| KMC5S160    | 2.27                | 2.05  | 1.83 | <b>1.60</b> | 1.35 | 1.25 | 1.15 | 1.00 | 0.85 |
| KMC5S200    | 2.60                | 2.44  | 2.22 | <b>2.00</b> | 1.80 | 1.60 | 1.50 | 1.07 | 0.80 |
| KMC5S200-16 | 2.60                | 2.44  | 2.22 | <b>2.00</b> | 1.80 | 1.60 | 1.50 | 1.07 | 0.80 |
| KMC5S260    | 3.40                | 3.16  | 2.80 | <b>2.60</b> | 2.34 | 2.08 | 1.95 | 1.39 | 1.04 |
| KMC5S260-16 | 3.40                | 3.16  | 2.80 | <b>2.60</b> | 2.34 | 2.08 | 1.95 | 1.39 | 1.04 |
| KMC5S300    | 4.15                | 3.76  | 3.46 | <b>3.00</b> | 2.55 | 2.28 | 2.01 | 1.61 | 1.33 |

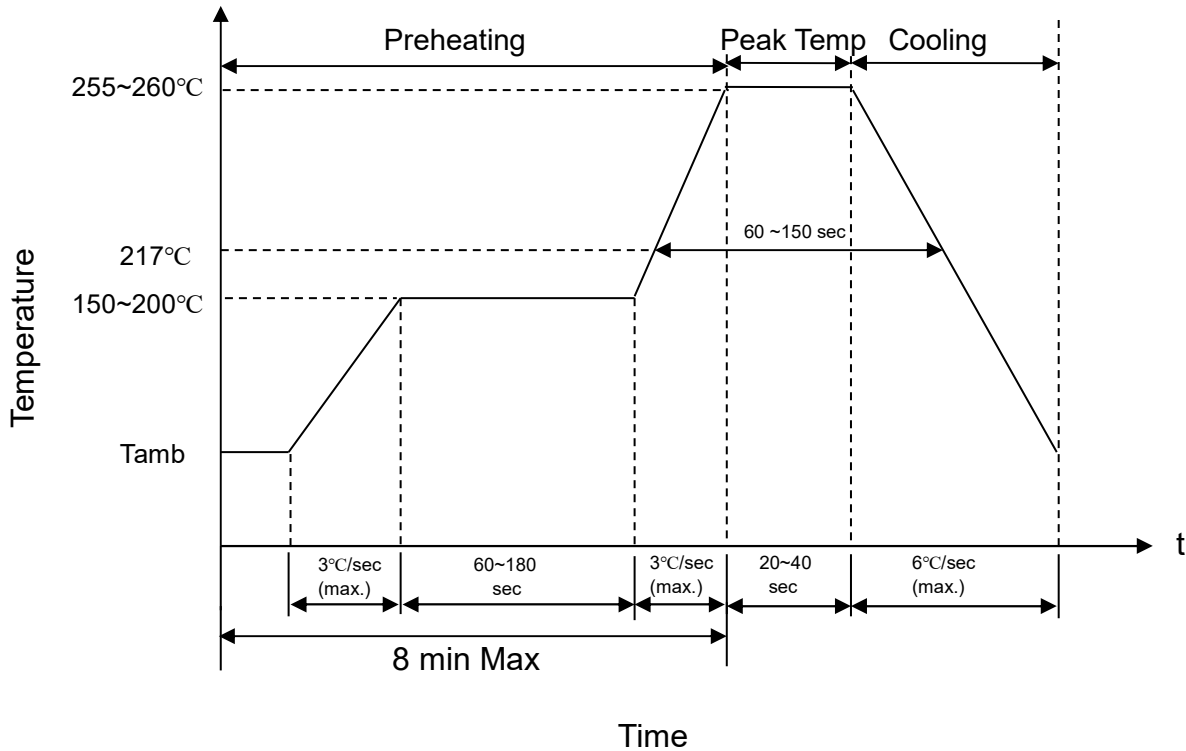
# Polymer PTC Resettable Fuse: KMC Series

## SMD Type



### Recommended Soldering Condition

- IR-Reflow Soldering Profile



- Welding method of the product is reflow welding, and wave soldering is not recommended.
- Recommended reflow methods: IR, vapor phase, and hot air oven.
- Devices can be cleaned by using standard industry methods and solvents.

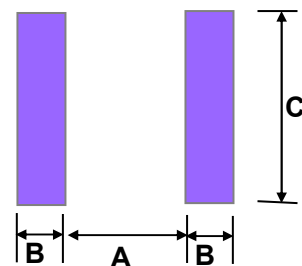
**Note:**

- If reflow temperature exceeds the recommended profile, devices may not meet the performance requirements.
- Devices are not designed to be wave soldered to the bottom side of the board.

### Recommended Soldering Pad Dimensions (Nominal)

(Unit:mm)

| Series | Size | A    | B    | C    |
|--------|------|------|------|------|
| KMC1S  | 0603 | 0.80 | 1.00 | 1.00 |
| KMC2S  | 0805 | 1.20 | 1.00 | 1.50 |
| KMC3S  | 1206 | 2.00 | 1.00 | 1.90 |
| KMC5S  | 1812 | 3.45 | 1.78 | 3.50 |



# Polymer PTC Resettable Fuse: KMC Series

## SMD Type

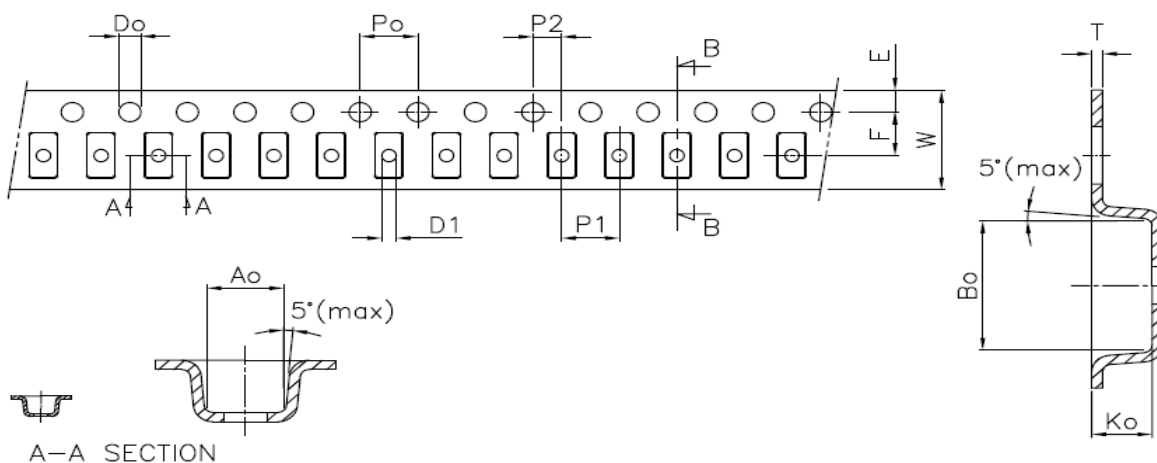


### ■ Reliability

| Item                        | Standard               | Test Condition / Methods                                  | Criteria   |
|-----------------------------|------------------------|---|--|
| Passive Aging               | IEC 60738-1            | 85±5°C, 1000±24hrs  | ±10% typical resistance change                               |
| Humidity Aging              | Specification Standard | 85±5°C, 80~85%RH, 100±5hrs                                | ±5% typical resistance change                                |
| Rapid Change of Temperature | IEC 60738-1            | 85±5/-40±5°C, 20 cycles, Duration:30min                   | -33% typical resistance change                               |
| Overload Endurance          | UL 1434                | Vmax,120% Imax, 50 cycles<br>Vmax,300% Itrip, 6000 cycles | No visible damage  |
| Trip Endurance              | UL 1434                | Vmax, Itrip ≤ I ≤ Imax, 1000±24hrs                        | No visible damage  |
| Solderability               | IEC 60068-2-58         | 245 ± 5 °C, 3 ± 0.3 sec                                   | At least 95% of terminal electrode is covered by new solder. |

### ■ Package

#### ● Taping Specification



#### ◆ KMC1S Series: SMD 0603 Type

For KMC1S010, KMC1S020, KMC1S025

(Unit: mm)

| Index<br>Size | $A_o$ | $B_o$ | $K_o$ | $P_o$ | $P_1$ | $P_2$ | $T$   | $E$   | $F$   | $D_o$    | $D_1$          | $W$            | $10P_o$ |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------------|----------------|---------|
|               | ±0.05 | ±0.05 | ±0.05 | ±0.10 | ±0.10 | ±0.05 | ±0.05 | ±0.10 | ±0.05 | +0.10/-0 | +0.10<br>-0.05 | +0.30<br>-0.10 | ±0.20   |
| 0603          | 1.10  | 1.85  | 0.60  | 4.00  | 4.00  | 2.00  | 0.20  | 1.75  | 3.50  | 1.50     | 0.50           | 8.00           | 40.00   |

# Polymer PTC Resettable Fuse: KMC Series



## SMD Type

For KMC1S035

(Unit: mm)

| Index<br>Size | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | T              | E     | F     | D <sub>0</sub> | D <sub>1</sub> | W     | 10P <sub>0</sub> |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------|----------------|----------------|-------|------------------|
|               | ±0.10          | ±0.15          | ±0.05          | ±0.10          | ±0.10          | ±0.05          | +0.05<br>-0.08 | ±0.10 | ±0.05 | ±0.05          | Min.           | ±0.20 | ±0.20            |
| 0603          | 1.10           | 1.85           | 0.75           | 4.00           | 4.00           | 2.00           | 0.23           | 1.75  | 3.50  | 1.55           | 0.40           | 8.00  | 40.00            |

### ◆ KMC2S Series: SMD 0805 Type

(Unit: mm)

| Index<br>Size | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | T     | E     | F     | D <sub>0</sub> | D <sub>1</sub> | W     | 10P <sub>0</sub> |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------|-------|----------------|----------------|-------|------------------|
|               | ±0.10          | ±0.10          | ±0.05          | ±0.08          | ±0.10          | ±0.05          | ±0.10 | ±0.10 | ±0.05 | ±0.05          | Min.           | ±0.10 | ±0.20            |
| 0805          | 1.60           | 2.30           | 0.90           | 4.00           | 4.00           | 2.00           | 0.25  | 1.75  | 3.50  | 1.55           | 1.00           | 8.00  | 40.00            |

### ◆ KMC3S Series: SMD 1206 Type

For KMC3S005, KMC3S010, KMC3S050-15, KMC3S100, KMC3S110, KMC3S150, and KMC3S200

(Unit: mm)

| Index<br>Size | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | T     | E     | F     | D <sub>0</sub> | D <sub>1</sub> | W     | 10P <sub>0</sub> |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------|-------|----------------|----------------|-------|------------------|
|               | +0.1/-0        | +0.1/-0        | ±0.05          | ±0.10          | ±0.10          | ±0.10          | ±0.05 | ±0.10 | ±0.10 | ±0.05          | Min.           | ±0.30 | ±0.20            |
| 1206          | 1.95           | 3.55           | 1.40           | 4.00           | 4.00           | 2.00           | 0.23  | 1.75  | 3.50  | 1.55           | 1.00           | 8.00  | 40.00            |

For KMC3S012, KMC3S016, KMC3S020, KMC3S025, KMC3S035, KMC3S050, and KMC3S075

(Unit: mm)

| Index<br>Size | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | T     | E     | F     | D <sub>0</sub> | D <sub>1</sub> | W     | 10P <sub>0</sub> |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------|-------|----------------|----------------|-------|------------------|
|               | ±0.10          | ±0.10          | ±0.05          | ±0.10          | ±0.10          | ±0.10          | ±0.05 | ±0.10 | ±0.10 | ±0.05          | Min.           | ±0.30 | ±0.20            |
| 1206          | 1.85           | 3.45           | 0.85           | 4.00           | 4.00           | 2.00           | 0.23  | 1.75  | 3.50  | 1.55           | 1.00           | 8.00  | 40.00            |

### ◆ KMC5S Series: SMD 1812 Type

For KMC5S010, KMC5S014, KMC5S020, KMC5S075-24, KMC5S075-33, KMC5S110-16, KMC5S110-24, KMC5S110-33, KMC5S125-16, KMC5S150-12, KMC5S150-24, KMC5S200-16, KMC5S260, KMC5S260-16, and KMC5S300

(Unit: mm)

| Index<br>Size | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | T     | E     | F     | D <sub>0</sub> | D <sub>1</sub> | W     | 10P <sub>0</sub> |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------|-------|----------------|----------------|-------|------------------|
|               | ±0.10          | ±0.10          | ±0.05          | ±0.10          | ±0.10          | ±0.10          | ±0.05 | ±0.10 | ±0.10 | ±0.05          | Min.           | ±0.30 | ±0.20            |
| 1812          | 3.56           | 4.94           | 1.70           | 4.00           | 8.00           | 2.00           | 0.25  | 1.75  | 5.50  | 1.55           | 1.50           | 12.00 | 40.00            |

For KMC5S035, KMC5S050, KMC5S075, KMC5S110, KMC5S125, KMC5S150, KMC5S160, and KMC5S200

(Unit: mm)

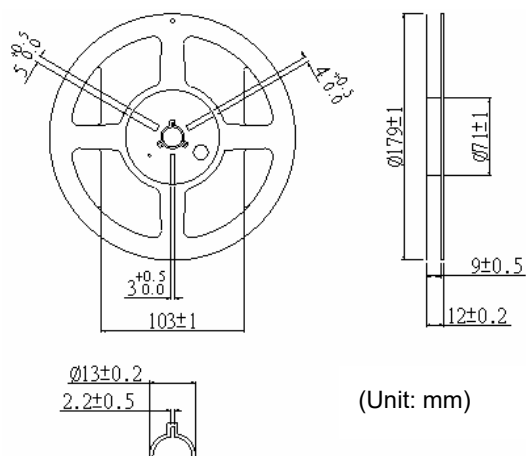
| Index<br>Size | A <sub>0</sub> | B <sub>0</sub> | K <sub>0</sub> | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | T     | E     | F     | D <sub>0</sub> | D <sub>1</sub> | W     | 10P <sub>0</sub> |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------|-------|----------------|----------------|-------|------------------|
|               | ±0.10          | ±0.10          | ±0.05          | ±0.10          | ±0.10          | ±0.10          | ±0.03 | ±0.10 | ±0.10 | ±0.05          | Min.           | ±0.30 | ±0.20            |
| 1812          | 3.50           | 5.00           | 0.90           | 4.00           | 8.00           | 2.00           | 0.25  | 1.75  | 5.50  | 1.55           | 1.50           | 12.00 | 40.00            |

# Polymer PTC Resettable Fuse: KMC Series

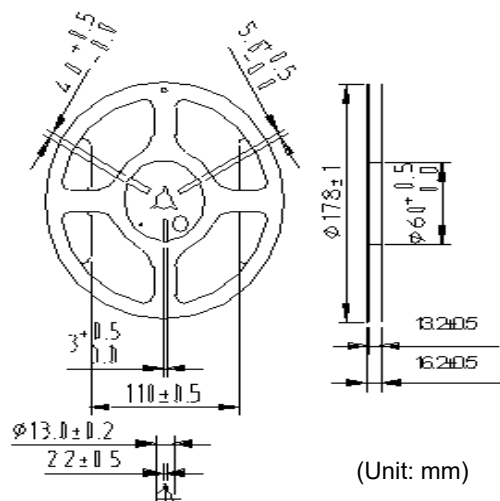
## SMD Type



### Quantity



| Size | Part no   | Quantity (pcs/reel) |
|------|---|---------------------|
| 0603 | KMC1S010, KMC1S020, KMC1S025  | 6,000               |
|      | KMC1S035  | 5,000               |
| 0805 | For all parts   | 4,000               |
| 1206 | KMC3S005, KMC3S010, KMC3S050-15, KMC3S100, KMC3S110, KMC3S150, KMC3S200 | 5,000               |
|      | KMC3S012, KMC3S016, KMC3S020, KMC3S025, KMC3S035, KMC3S050, KMC3S075    | 5,000               |



| Size | Part no  | Quantity (pcs/reel) |
|------|--|---------------------|
| 1812 | KMC5S010, KMC5S014, KMC5S020, KMC5S075-24, KMC5S075-33, KMC5S110-16, KMC5S110-24, KMC5S110-33, KMC5S125-16, KMC5S150-12, KMC5S150-24, KMC5S200-16, KMC5S260, KMC5S260-16, KMC5S300 | 1,000               |
|      | KMC5S035, KMC5S050, KMC5S075, KMC5S110, KMC5S125, KMC5S150, KMC5S160, KMC5S200   | 2,000               |

### Warehouse Storage Conditions of Products

- Storage Conditions:
  - Storage Temperature: -10 °C ~ +40 °C
  - Relative humidity: ≤ 75%RH
  - Thermistors must be kept away from sunlight and stored in a non-corrosive atmosphere.
- Period of Storage: 1 year