

# Metal Oxide Film Resistors

(Flame proof construction UL-1412)



MO Series

MERITEK

## PART NUMBERING SYSTEM

**MO**    **1W**    **103**    **J**    **Xx**

Meritek Series

Power Rating

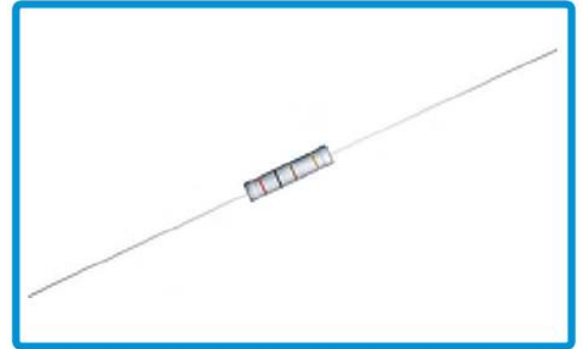
| CODE  | 1/4W  | 1/2WS | 1/2W | 1W | 2W | 3W |
|-------|-------|-------|------|----|----|----|
| Watts | 0.25W | 0.5W  | 0.5W | 1W | 2W | 3W |

Resistance  
 First 2 digits are significant  
 3<sup>rd</sup> digit is multiplier  
 "R" indicates decimal value below 10 ohm

Tolerance

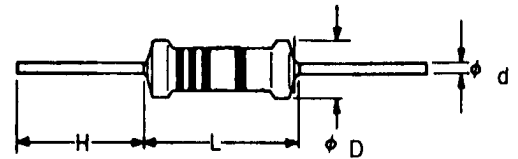
| CODE      | J    | G    | F    |
|-----------|------|------|------|
| Tolerance | ± 5% | ± 2% | ± 1% |

TR: Tape and Reel, TA: Tape and Ammo, BU: Bulk Pack  
 F: F-Type, M: M-Type, PA: Pana  
 Note: "S" in "MOXWS-" denotes small body size



## DIMENSIONS

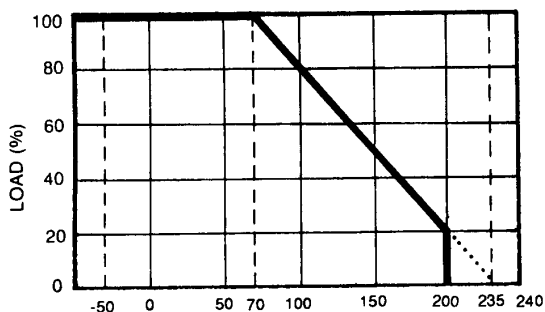
| Type   |         | Body     |          | Leadwire |           |
|--------|---------|----------|----------|----------|-----------|
|        |         | (L)      | (D)      | (H)      | (d±0.03)  |
| MO1/4W | MO1/2WS | 6.3±0.5  | 2.3 ±0.3 | 28±2     | 0.55±0.03 |
| MO1/2W | MO1WS   | 9.0±0.5  | 3.2 ±0.5 | 26±2     | 0.65±0.03 |
| MO1W   | MO2WS   | 11.5±1.0 | 4.5±0.5  | 35±2     | 0.78±0.03 |
| MO2W   | MO3WS   | 15.5±1.0 | 5.0±0.5  | 32±2     | 0.78±0.03 |
| MO3W   | MO5WS   | 17.5±1.0 | 6.5±0.5  | 35±2     | 0.78±0.03 |
| MO5W   | MO7WS   | 24.5±1.0 | 8.5±0.5  | 35±2     | 0.78±0.03 |



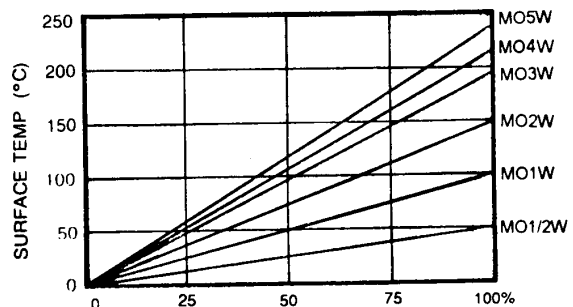
## SPECIFICATIONS

| Power rating @ 70°C             | 1/4W                 | 1/2WS | 1/2W | 1WS  | 1W   | 2WS  | 2W   | 3WS  | 3W    | 5W    | 5WS   | 7WS   |
|---------------------------------|----------------------|-------|------|------|------|------|------|------|-------|-------|-------|-------|
| Max working voltage             | 200V                 | 250V  | 300V | 500V | 500V | 500V | 550V | 750V | 800V  | 1000V | 1000V | 1000V |
| Max overload voltage            | 350V                 | 400V  | 500V | 600V | 600V | 600V | 600V | 800V | 1000V | 1000V | 1000V | 1000V |
| Dielectric withstanding voltage | 350V                 | 350V  | 400V | 500V | 500V | 500V | 500V | 600V | 750V  | 750V  | 750V  | 750V  |
| Operation Temp. Range           | -55°C to +235°C      |       |      |      |      |      |      |      |       |       |       |       |
| Temp. Coefficient               | ±200ppm/°C           |       |      |      |      |      |      |      |       |       |       |       |
| Value Range ±1% ±2% ±5%         | 1Ω~510KΩ, E24 Series |       |      |      |      |      |      |      |       |       |       |       |

## DERATING CURVE



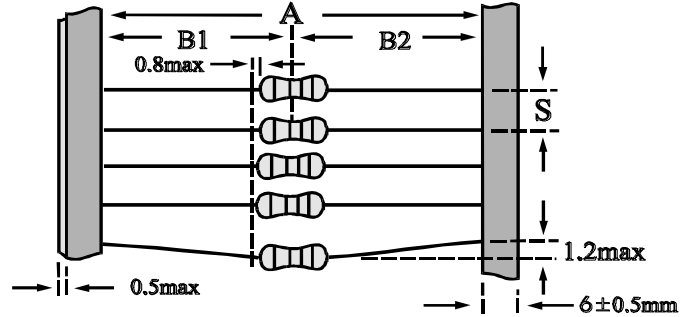
## TEMPERATURE RISE





**PACKING METHODS**

**BANDOLEER FOR AXIAL LEADS**



| STYLE   | DIMENSIONS ( mm )                |       |             |                           |
|---|----------------------------------|-------|-------------|---------------------------|
| Type  | A                                | B1-B2 | S (spacing) | Max. deviation of spacing |
| 1/8W<br>1/6W<br>1/4WS<br>0.4W(0204)<br>1/2WSS | 52<br>+1<br>-0                   | 1.2   | 5           | 1 mm per<br>10 spacing    |
| 1/4W<br>1/2WS<br>0.6W(0207)<br>1WSS           | 26<br>+1<br>-0                   | 1     | 5           |                           |
| 1/3W  | 52<br>+1<br>-0                   | 1.2   | 5           |                           |
| 1/2W<br>1WS<br>2WSS                           | 52<br>+1<br>-0                   | 1.2   | 5           |                           |
| 1W<br>2WS<br>3WSS                             | 52<br>+1<br>-0<br>73<br>+1<br>-0 | 1.5   | 5           |                           |
| 2W<br>3WS<br>4WSS                             | 52<br>+1<br>-0<br>73<br>+1<br>-0 | 1.5   | 10          |                           |
| 3W<br>5WS                                     | 73<br>+1<br>-0                   | 1.5   | 10          |                           |
| 5W<br>7WS                                     | 88<br>+1<br>-0                   | 1.5   | 10          |                           |

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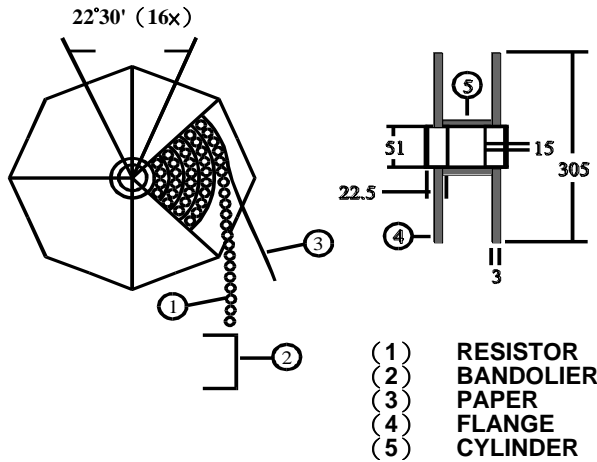
(Flame proof construction UL-1412)



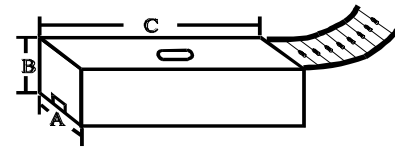
MO Series

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## TAPE ON REEL PACKING



## TAPE ON BOX PACKING



| STYLE   | TAPE ON REEL      |              | TAPE ON BOX |         |         |             |
|---|-------------------|--------------|-------------|---------|---------|-------------|
|   | Across Flange (A) | Qty Per Reel | W ( A )     | H ( B ) | L ( C ) | Qty Per Box |
| Normal<br>1/8W<br>1/6W<br>1/4WS<br>0.4W(0204)<br>1/2WSS | 72                | 5,000        | 80          | 75      | 264     | 5,000       |
| 1/4W<br>1/2WS<br>0.6W(0207)<br>1WSS                     | 72                | 5,000        | 80          | 105     | 264     | 5,000       |
| 1/3W  | 72                | 5,000        | 80          | 35      | 264     | 1,000       |
| 1/2W<br>1WS<br>2WSS                                     | 72                | 2,500        | 80          | 46      | 264     | 1,000       |
| 1W<br>2WS<br>3WSS                                       | 95                | 2,000        | 103         | 82      | 265     | 1,000       |
| 2W<br>3WS<br>4WSS                                       | 95                | 1,000        | 103         | 96      | 265     | 1,000       |
| 3W<br>5WS   | 95                | 1,000        | 105         | 75      | 270     | 500         |
| 5W<br>7WS   | 110               | 500          | 115         | 75      | 270     | 250         |