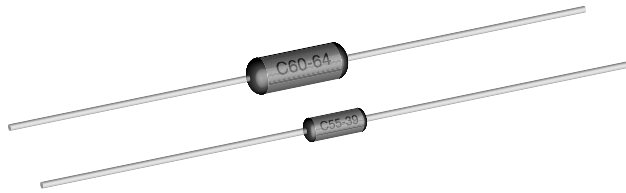


Metal Film Resistors, Axial, Special Purpose, Fusible, Flameproof


FEATURES

- Special filming and coating processes
- Fusible - circuit protection in case of other component failure
- Flameproof - meets EIA RS-325, will not flame when overloaded
- Tape and reel packaging is standard
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS*
Available

Note

* This datasheet provides information about parts that are RoHS-compliant and/or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details.

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | HISTORICAL MODEL | POWER RATING $P_{70^\circ\text{C}}$ W | RESISTANCE RANGE ⁽¹⁾ Ω | TOLERANCE \pm % | TEMPERATURE COEFFICIENT \pm ppm/ $^\circ\text{C}$ |
|--------------|------------------|---|---|----------------------|--|
| CMF55..39 | CMF-55-39 | 0.25 | 4 to 10K | 1 | 100 |
| CMF60..64 | CMF-60-64 | 0.50 | 4 to 23K | 1 | 100 |
| CMF70..5 | CMF-70-5 | 1.5 | 4 to 30K | 1 | 100 |

Note

⁽¹⁾ Contact factory for extended values

TECHNICAL SPECIFICATIONS

| PARAMETER | UNIT | CMF55..39 | CMF60..64 | CMF70..5 |
|--|------------------|----------------|----------------|----------------|
| Rated Dissipation at 70 $^\circ\text{C}$ | W | 0.25 | 0.50 | 1.5 |
| Maximum Flame Test Voltage | V_{RMS} | 350 | 500 | 1000 |
| Dielectric Strength | V_{AC} | 450 | 750 | 900 |
| Insulation Resistance | Ω | $\geq 10^{10}$ | $\geq 10^{10}$ | $\geq 10^{10}$ |
| Operating Temperature Range | $^\circ\text{C}$ | -65/+165 | -65/+165 | -65/+165 |
| Weight (Max.) | g | 0.28 | 0.50 | 1.30 |

GLOBAL PART NUMBER INFORMATION

Global Part Numbering: **CMF55100R00FKRE39** (preferred part numbering format)

C M F 5 5 1 0 0 R 0 0 F K R E 3 9

| GLOBAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | TEMP. COEFFICIENT | PACKAGING | SPECIAL |
|-------------------------|--|----------------|-------------------|---|--|
| CMF55 CMF60 CMF70 | R = Ω K = $k\Omega$ 4R0000 = 4.0 Ω 680R00 = 680 Ω 23K000 = 23 $k\Omega$ | F = $\pm 1\%$ | K = 100 ppm | EK = lead (Pb)-free, bulk EA = lead (Pb)-free, T/R (full) EB = lead (Pb)-free, T/R (1000 pieces; except 70's) BF = tin/lead, bulk RE = tin/lead, T/R (full; except 70's) CP = tin/lead, T/R (full; 70's only) R6 = tin/lead, T/R (1000 pieces; except 70's) | 39 = fusible CMF 55 64 = fusible CMF60 5 = fusible CMF70 |

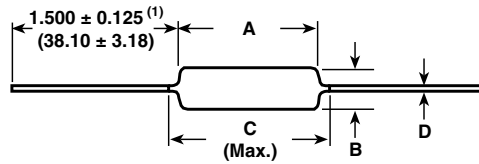
Historical Part Number example: **CMF-55-39100F R36** (will continue to be accepted)

| | | | |
|------------------|------------------|----------------|-----------|
| CMF-55-39 | 1000 | F | R36 |
| HISTORICAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING |

Note

- For additional information on packaging, refer to the Through Hole Resistor Packaging document (www.vishay.com/doc?31544).

DIMENSIONS in inches (millimeters)



Note

(1) Lead length for product in bulk pack. For product supplied in tape and reel, the actual lead length would be based on the body size, tape spacing and lead trim.

| GLOBAL MODEL | A | B | C (Max.) | D |
|--------------|---------------------------------|--------------------------------|------------------|--------------------------------|
| CMF55..39 | 0.240 ± 0.020 (6.10 ± 0.51) | 0.090 ± 0.008 (2.29 ± 0.21) | 0.290 (7.37) | 0.025 ± 0.002 (0.64 ± 0.05) |
| CMF60..64 | 0.370 ± 0.035 (9.40 ± 0.89) | 0.145 ± 0.010 (3.68 ± 0.25) | 0.425 (10.80) | 0.032 ± 0.002 (0.81 ± 0.05) |
| CMF70..5 | 0.562 ± 0.031 (14.27 ± 0.79) | 0.230 ± 0.015 (5.84 ± 0.38) | 0.687 (17.54) | 0.032 ± 0.002 (0.81 ± 0.05) |

MARKING

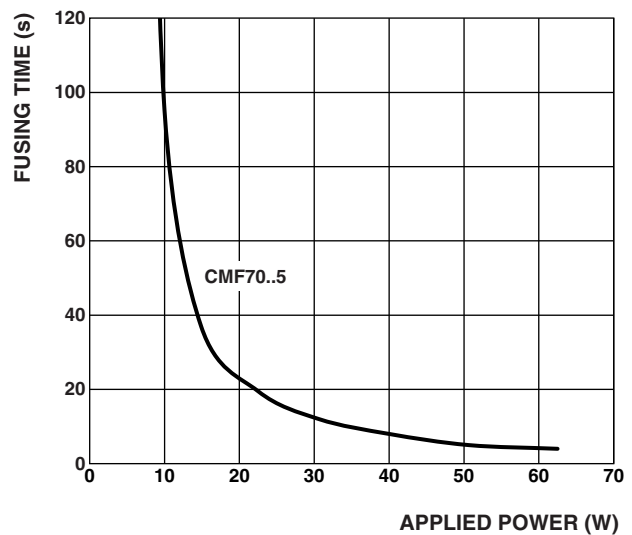
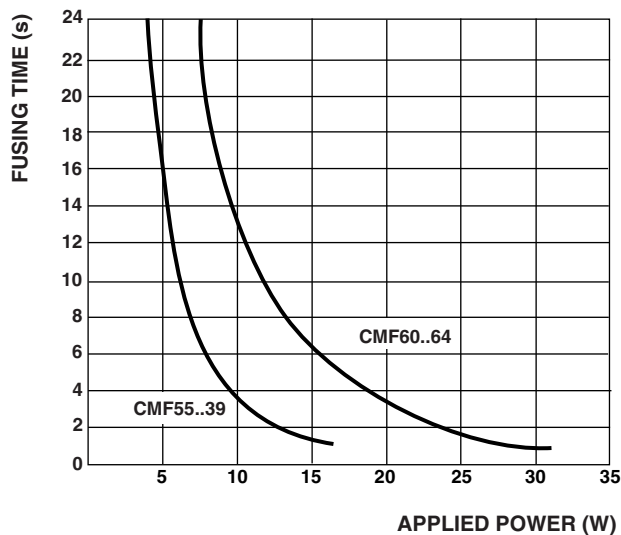
Model: C55-39 = CMF55-39, C60-64 = CMF60-64, C70-5 = CMF70-5
 Temperature coefficient: T1 = 100 ppm

CMF55-39, CMF60-64, CMF70-5: (5 lines)

| | |
|---------|-------------------|
| DALE | Manufacturer |
| C55-39 | Model |
| 1.47 kΩ | Value |
| 1 % T1 | Tolerance and TC |
| 1130 | 4-digit date code |

FUSIBLE, FLAMEPROOF

(Typical Fusing Times)



Note

• Fusing time graphs represent an average for the resistance value range. Low resistance parts require higher power to fuse than high resistance parts. It is recommended that values less than 200 Ω be evaluated for specific applications.



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.