



# 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](http://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 $P_{70\text{ }^\circ\text{C}}$ W	RESISTANCE RANGE <sup>(1)</sup> $\Omega$	TOLERANCE $\pm \%$	TEMPERATURE COEFFICIENT $\pm \text{ppm}/^\circ\text{C}$
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

<sup>(1)</sup> Contact factory for extended values

TECHNICAL SPECIFICATIONS				
PARAMETER	UNIT	CMF55..39	CMF60..64	CMF70..5
Rated Dissipation at 70 °C	W	0.25	0.50	1.5
Maximum Flame Test Voltage	$V_{\text{RMS}}$	350	500	1000
Dielectric Strength	$V_{\text{AC}}$	450	750	900
Insulation Resistance	$\Omega$	$\geq 10^{10}$	$\geq 10^{10}$	$\geq 10^{10}$
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 = $\Omega$ K = $k\Omega$ 4R0000 = 4.0 $\Omega$ 680R00 = 680 $\Omega$ 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](http://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**

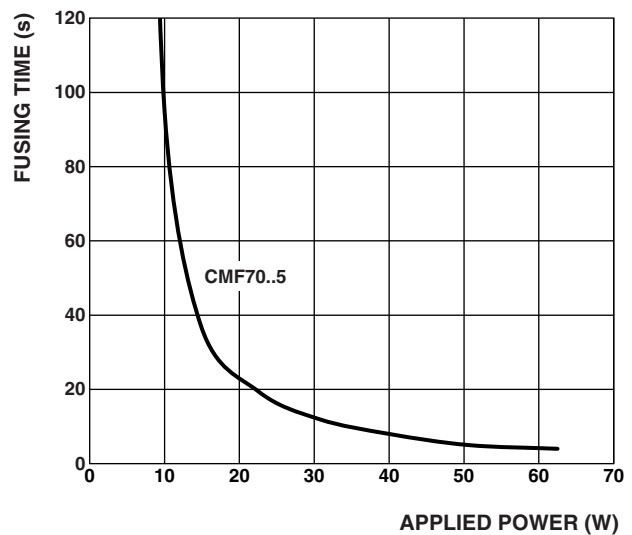
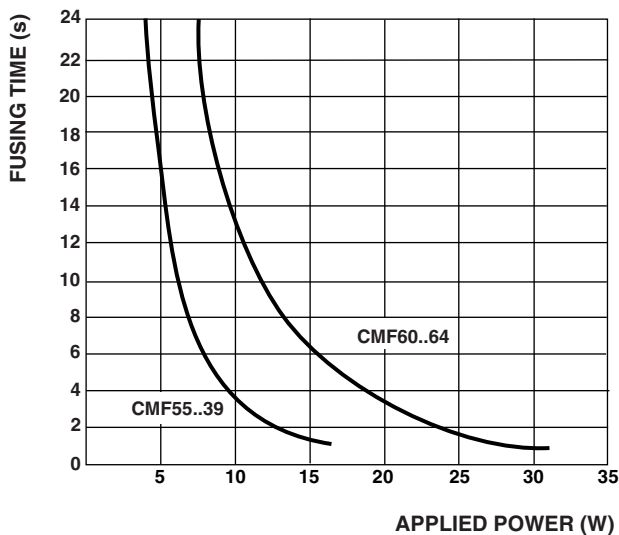
Model: C55-39 = CMF55-39, C60-64 = CMF60-64, C70-5 = CMF70-5  
 Temperature coefficient: T1 = 100 ppm

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.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. 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.