Metal Film Resistors, Industrial, ± 1 % and ± 5 % Tolerance

FEATURES

- 0.33 W power rating
- ± 100 ppm/°C standard, ± 50 ppm/°C available upon request
- Superior electrical performance
- Flame retardant epoxy conformal coating
- Standard 4 or 5 band color code marking for ease of identification after mounting
- Tape and reel packaging for automatic insertion (52.4 mm inside tape spacing per EIA-296-E)
- Compliant to RoHS directive 2002/95/EC

Pb-free Available

e3

RoHS* COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{70\,°C}$ W	MAXIMUM WORKING VOLTAGE (2) V	TEMPERATURE COEFF. (1) ± ppm/°C	TOLERANCE ± %	RESISTANCE RANGE Ω	E-SERIES
CCF50	CCF-50	0.33	200	100	1, 5	10 to 1M	96 for 1 % 24 for 5 %

Notes

(1) 50 ppm/°C on request

(2) Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CCF50
Rated Dissipation at 70 °C	W	0.33
Maximum Working Voltage	V	≤ 200
Insulation Voltage (1 Min)	V_{eff}	> 500
Dielectric Strength	V_{AC}	450
Insulation Resistance	Ω	≥ 10^{11}
Operating Temperature Range	°C	- 65 to + 165
Weight	g	0.11 max.

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CCF50301RFKR36 (preferred part numbering format)

C	C	F	5	0	3	0	1	R	F	K	R	3	6			

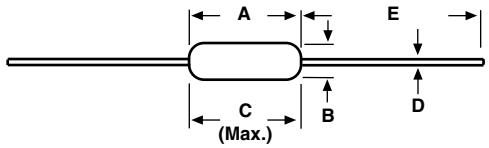
GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	TEMPERATURE COEFFICIENT	PACKAGING	SPECIAL
CCF50	**R** = Ω **K** = kΩ **M** = MΩ **10R0** = 10 Ω **680K** = 680 kΩ **1M00** = 1.0 MΩ	**F** = ± 1 % **J** = ± 5 %	**H** = 50 ppm **K** = 100 ppm	**E36** = Lead (Pb)-free, T/R (5000 pieces) **R36** = Tin/Lead, T/R (5000 pieces)	Blank = Standard (Dash Number) (up to 3 digits) From **1 to 999** as applicable

Historical Part Number example: CCF-503010F (will continue to be accepted)

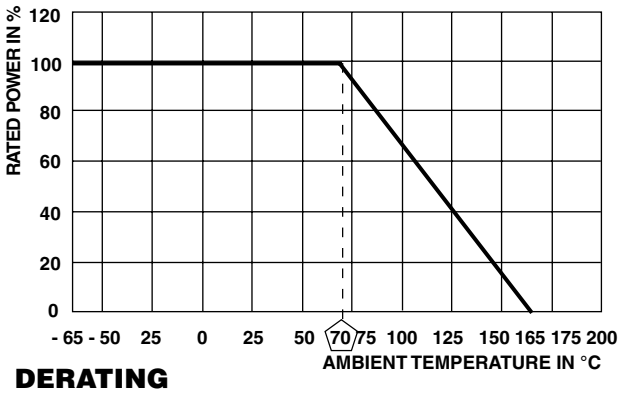
CCF-50	3010	F	R36
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

* Pb containing terminations are not RoHS compliant, exemptions may apply

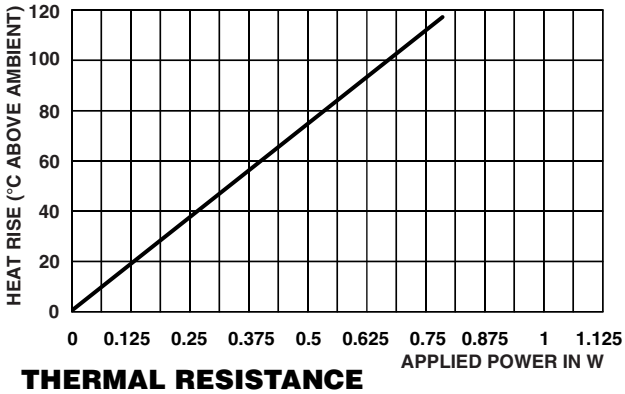
DIMENSIONS in inches (millimeters)



DIMENSION	INCHES	MILLIMETERS
A	0.133 ± 0.010	(3.3 ± 0.025)
B	0.062 ± 0.004	(1.57 ± 0.10)
C (Max.)	0.143	(3.63)
D	0.020 ± 0.002	(0.51 ± 0.05)
E	1.125 ± 0.040	(28.58 ± 1.02)



DERATING



THERMAL RESISTANCE

MARKING

- 5 band colorband for ± 1 %
- 4 band colorband for ± 5 %

PERFORMANCE

TEST [1]	MAXIMUM ΔR (TYPICAL TEST LOTS)
Thermal Shock	± 0.1 %
Short Time Overload	± 0.1 %
Low Temperature Operation	± 0.1 %
Moisture Resistance	± 0.2 %
Resistance to Soldering Heat	± 0.05 %
Shock	± 0.1 %
Vibration	± 0.05 %
Life	± 0.5 %
Terminal Strength	± 0.1 %
Dielectric Withstanding Voltage	± 0.05 %

Note

[1] Tests per MIL-R-10509

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 and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. 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.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Metal Film Resistors - Through Hole ***category:***

Click to view products by Vishay ***manufacturer:***

Other Similar products are found below :

FRN25J330R FRN50J1R0S H4100RBYA H415RBZA H41K1BYA H41K5BYA H41M0BDA H420R5BCA H421R5BZA H4221RBYA H424K3BDA H442K2BDA H45K62BZA H4634RBZA H473R2BZA H4931KBZA H8160KFDA H8274KBZA H82K0FDA H82K0FZA H87K5DYA RLR05C1501GPB14 RLR05C6201GS RLR20C3240FRB14 RLR20C51R0GMB14 RLR32C7R50FMB14 RNC55H4642FPB14 HR01623J HR01682J 270-1.69M-RC LR0204F110R LR0204F18R LR0204F20K LR0204F20R LR0204F510R LR1F121R LR1F133K LR1F383R LR1F3K01 LR1F4K75 LR2F330RJIT LR2F51R LR2F910R ERX-2SZJR20E SQMR74K7J FMF-25FTF52-100K FRN25J47R FRN50J100RS FRN50J470RS H4100RBZA