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CCF50

Vishay Dale

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



Product is End of Life Dec-2018
per PTN-DR-00011-2018, Rev 0

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)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

e3 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 $P_{70\,°C}$ 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)

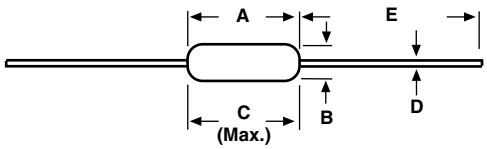
CCF-50	3010	F	R36
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

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

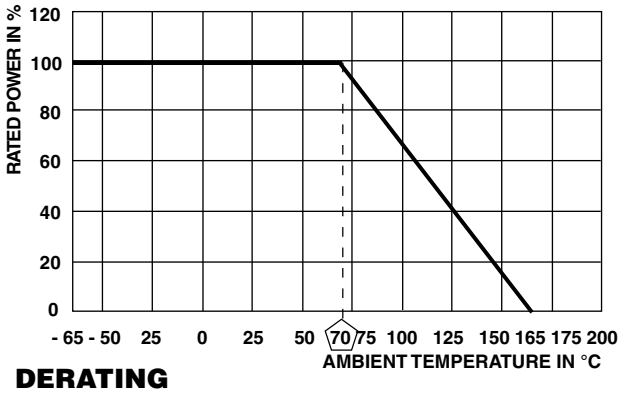
For technical questions, contact: ff2aresistors@vishay.com
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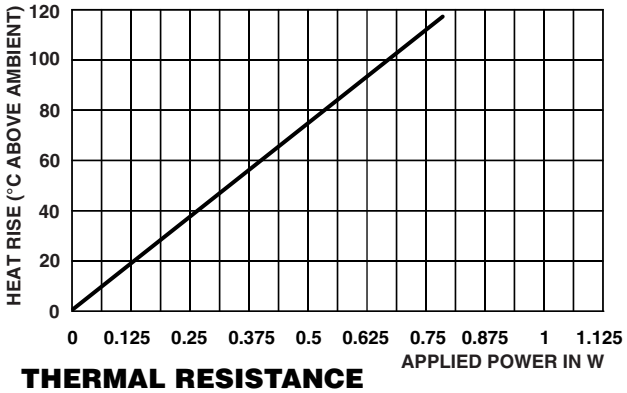
DIMENSIONS in inches (millimeters)



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

Color code marking with 5 color bands for ± 1 % product and 4 color bands for ± 5 % product

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

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