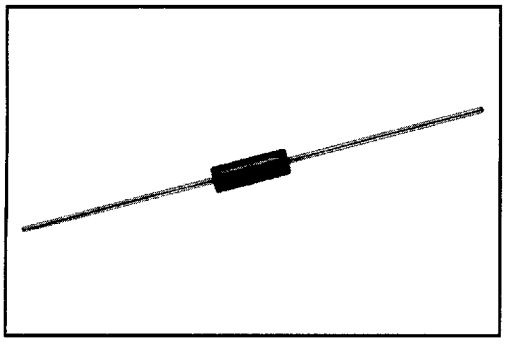
MODELS CJ and CH
Metal Film Resistors
Military/Established Reliability, MIL-R-55182 Qualified
Types RNC and RNR, Precision

VISHAY DALE®



FEATURES

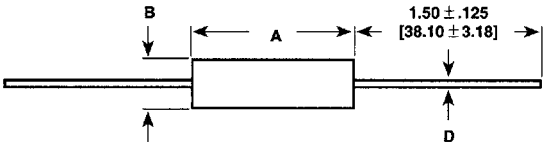
- RNC and RNR resistors are designed for the many military applications where established reliability is a must
- Extended life tests of over one-half billion unit test hours have proven the reliability inherent in the manufacturing process
- All CJ and CH resistors are "S" level failure rate
- These resistors are provided with high purity copper leads in accordance with MIL-STD-1276. Two solder finishes are available: Electroplated 60/40 solder and hot dipped 60/40 solder.
- Blue epoxy insulation coating over polyimide varnish provides superior moisture resistance properties

Note: Users ordering characteristic K will be provided characteristic H or J in accordance with paragraph 3.27.5 of MIL-R-55182

STANDARD ELECTRICAL SPECIFICATIONS

DALE® MODEL	MIL-R-55182 TYPE	WATTAGE RATING @ + 70°C	WATTAGE RATING @ + 125°C	VOLTAGE RATING	RESISTANCE RANGE (Ohms)	STANDARD TOLERANCE	TEMPERATURE COEFFICIENT PPM/°C
CJ50	RNC50J/ RNR50J	1/10	1/20	200	49.9 - 150k	± 0.1%, ± 0.5%, ± 1%	25
CH50	RNC50H/ RNR50H	1/10	1/20	200	10 - 150k 49.9 - 150k	± 0.5%, ± 1% ± 0.1%	50
CJ55	RNC55J/ RNR55J	1/8	1/10	200	10 - 301k 49.9 - 301k	± 0.5%, ± 1% ± 0.1%	25
CH55	RNC55H/ RNR55H	1/8	1/10	200	10 - 301k 49.9 - 301k	± 0.5%, ± 1% ± 0.1%	50
CJ60	RNC60J/ RNR60J	1/4	1/8	250	10 - 499k 49.9 - 499k	± 0.5%, ± 1% ± 0.1%	25
CH60	RNC60H/ RNR60H	1/4	1/8	250	10 - 499k 49.9 - 499k	± 0.5%, ± 1% ± 0.1%	50
CJ65	RNC65J/ RNR65J	1/2	1/4	300	49.9 - 1M	± 0.1%, ± 0.5%, ± 1%	25
CH65	RNC65H/ RNR65H	1/2	1/4	300	10 - 1M 49.9 - 1M	± 0.5%, ± 1% ± 0.1%	50

DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]



DALE® MODEL	MIL-R-55182 TYPE	A	B	D
CJ50	RNC50J/RNR50J	.145 ± .015 [3.68 ± .381]	.066 ± .008 [1.68 ± .203]	.016 [.406]
CH50	RNC50H/RNR50H			
CJ55	RNC55J/RNR55J	.235 ± .020 [5.97 ± .508]	.090 + .008 - .005 [2.29 + .203 - .127]	.025 [.635]
CH55	RNC55H/RNR55H			
CJ60	RNC60J/RNR60J	.375 + .025 - .040 [9.53 + .635 - 1.02]	.135 + .020 - .005 [3.43 + .508 - .127]	.025 [.635]
CH60	RNC60H/RNR60H			
CJ65	RNC65J/RNR65J	.560 ± .030 [14.22 ± .762]	.190 ± .015 [4.83 ± .381]	.025 [.635]
CH65	RNC65H/RNR65H			

Sales: **DALE ELECTRONICS, INC.**, 2300 Riverside Blvd., Norfolk, NE 68701-2242 • Phone (402) 371-0080 • Fax 402-644-4206
Technical: **DALE ELECTRONICS, INC.**, 550 High Street, Bradford, PA 16701-0930 • Phone (814) 362-5600 • Fax 814-362-5635

ENVIRONMENTAL PERFORMANCE

TEST	CJ50 RNC50J/ RNR50J	CH50 RNC50H/ RNR50H	CJ55 RNC55J/ RNR55J	CH55 RNC55H/ RNR55H	CJ60 RNC60J/ RNR60J	CH60 RNC60H/ RNR60H	CJ65 RNC65J/ RNR65J	CH65 RNC65H/ RNR65H
Overload & Thermal Shock	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Low Temperature Operation	0.15	0.15	0.1	0.1	0.1	0.1	0.1	0.1
High Temperature Exposure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Moisture Resistance	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Shock	0.2	0.2	0.05	0.05	0.05	0.05	0.05	0.05
Vibration	0.2	0.2	0.05	0.05	0.05	0.05	0.05	0.05
Load Life (2000 hours Mil rating)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Terminal Strength	0.2	0.2	0.05	0.05	0.05	0.05	0.05	0.05
Dielectric Withholding Voltage	0.15	0.15	0.1	0.1	0.1	0.1	0.1	0.1
Effect Solder Heat	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

PART MARKING

RNC55

- — Date code, characteristic
- — Style and terminal
- — Value
- — Tolerance, FR, terminal, JAN, manufacturer symbol

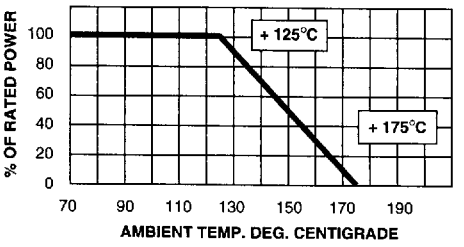
RNC60 & RNC65

- — Source code
- — Date code and JAN
- — Style, terminal, (60/65) and characteristic
- — Value, tolerance and FR
- — Production lot code

RNC50

- — Date code, characteristic
- — Value
- — Tolerance, FR, terminal, JAN
- — Lot code, manufacturer symbol

DERATING



HOW TO ORDER - MILITARY PART NUMBER

RNC	55	H	1001	F	S
MODEL	SIZE	CHARACTERISTIC	VALUE	TOLERANCE	FAILURE RATE
RNC = Solderable, weldable leads RNR = Solderable leads	50 55 60 65	J = Non-hermetic ± 25PPM/°C H = Non-hermetic ± 50PPM/°C	First 3 digits are significant figures, fourth digit is the multiplier.	B = ± 0.1% D = ± 0.5% F = ± 1%	Level % per 1000 Hours (60% confidence) M = 1% P = 0.1% R = 0.01% S = 0.001%

HOW TO ORDER - DALE® MODEL

CH	55	1001	±1%
MODEL	SIZE	VALUE	TOLERANCE
J = ± 25PPM/°C H = ± 50PPM/°C	50 55 60 65	First 3 digits are significant figures, fourth digit is the multiplier.	± 0.1% ± 0.5% ± 1%