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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

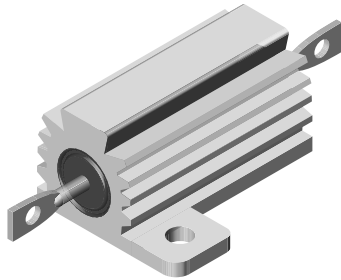
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





Wirewound Resistors, Military/Established Reliability MIL-PRF-39009 Qualified, Type RER, R Level



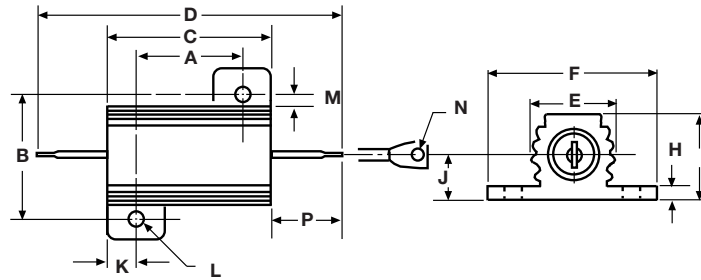
FEATURES

- Aluminum heat sink housing
- Molded construction for total environmental protection
- Qualified to MIL-PRF-39009
- Complete welded construction
- Non-inductive styles manufactured with Ayrton-Perry winding for lowest reactive components
- Mounts on chassis to utilize heat-sink effect

STANDARD ELECTRICAL SPECIFICATIONS					
MILITARY MODEL	VISHAY REFERENCE MODEL	POWER RATING $P_{25\text{ }^\circ\text{C}}$ W	RESISTANCE RANGE Ω	TOLERANCE $\pm \%$	WEIGHT (typical) g
RER40	ENH05	5	1 to 1.65K	1	3.3
RER45	ENH10	10	1 to 2.8K	1	8.8
RER50	ENH25	20	1 to 6.04K	1	16.5
RER55	ENH50	30	1 to 4.99K	1	35
RER60	ERH05	5	0.10 to 3.32K	1	3
RER65	ERH10	10	0.10 to 5.62K	1	6
RER70	ERH25	20	0.10 to 12.1K	1	13
RER75	ERH50	30	0.10 to 39.2K	1	28

TECHNICAL SPECIFICATIONS					
PARAMETER	UNIT	RER40/RER60	RER45/RER65	RER50/RER70	RER55/RER75
Free Air Power Rating at 25 °C	W	3	6	8	10
Temperature Coefficient	ppm/°C	± 20 for 20 Ω and above; ± 50 for 1 Ω to 19.9 Ω ; ± 100 for 0.1 Ω to 0.99 Ω			
Maximum Working Voltage	V	$(P \times R)^{1/2}$			
Insulation Resistance	Ω	10 000 M Ω minimum dry, 1000 M Ω minimum after moisture test			
Solderability	-	Meets requirements of ANSI J-STD-002			
Operating Temperature Range	°C	-55 to +250			

MILITARY PART NUMBER INFORMATION				
Military Part Numbering example: RER65F1001RC02				
R	E	R	6	5
F	1	0	0	1
R	C	0	2	
MIL TYPE	TOLERANCE CODE	RESISTANCE VALUE	FAILURE RATE	PACKAGING CODE
RER40 RER45 RER50 RER55 RER60 RER65 RER70 RER75	F = $\pm 1.0 \%$	3 digit significant figure, followed by a multiplier 49R9 = 49.9 Ω 1000 = 100 Ω 1001 = 1000 Ω	M = 1.0 %/1000 h P = 0.1 %/1000 h R = 0.01 %/1000 h	C02 = tin/lead, card pack CSL = tin/lead, card pack, single lot date code

DIMENSIONS


MILITARY MODEL	DIMENSIONS in inches [millimeters]													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
RER40 RER60	0.444 ± 0.005 [11.280 ± 0.127]	0.490 ± 0.005 [12.450 ± 0.127]	0.600 ± 0.031 [15.240 ± 0.787]	1.125 ± 0.062 [28.580 ± 1.570]	0.334 ± 0.015 [8.480 ± 0.381]	0.646 ± 0.015 [16.410 ± 0.381]	0.320 ± 0.015 [8.130 ± 0.381]	0.065 ± 0.010 [1.650 ± 0.254]	0.133 ± 0.010 [3.380 ± 0.254]	0.078 ± 0.010 [1.980 ± 0.254]	0.093 ± 0.005 [2.360 ± 0.127]	0.078 ± 0.015 [1.980 ± 0.381]	0.050 ± 0.005 [1.270 ± 0.127]	0.266 ± 0.062 [6.760 ± 1.570]
RER45 RER65	0.562 ± 0.005 [14.270 ± 0.127]	0.625 ± 0.005 [15.880 ± 0.127]	0.750 ± 0.031 [19.050 ± 0.787]	1.375 ± 0.062 [34.930 ± 1.570]	0.420 ± 0.015 [10.670 ± 0.381]	0.800 ± 0.015 [20.320 ± 0.381]	0.390 ± 0.015 [9.910 ± 0.381]	0.075 ± 0.010 [1.900 ± 0.254]	0.165 ± 0.010 [4.190 ± 0.254]	0.093 ± 0.010 [2.360 ± 0.254]	0.094 ± 0.005 [2.390 ± 0.127]	0.102 ± 0.015 [2.590 ± 0.381]	0.085 ± 0.005 [2.160 ± 0.127]	0.312 ± 0.062 [7.920 ± 1.570]
RER50 RER70	0.719 ± 0.005 [18.260 ± 0.127]	0.781 ± 0.005 [19.840 ± 0.127]	1.062 ± 0.031 [26.970 ± 0.787]	1.938 ± 0.062 [49.230 ± 1.570]	0.550 ± 0.015 [13.970 ± 0.381]	1.080 ± 0.015 [27.430 ± 0.381]	0.546 ± 0.015 [13.870 ± 0.381]	0.075 ± 0.010 [1.900 ± 0.254]	0.231 ± 0.010 [5.870 ± 0.254]	0.172 ± 0.010 [4.370 ± 0.254]	0.125 ± 0.005 [3.180 ± 0.127]	0.115 ± 0.015 [2.920 ± 0.381]	0.085 ± 0.005 [2.160 ± 0.127]	0.438 ± 0.062 [11.130 ± 1.570]
RER55 RER75	1.562 ± 0.005 [39.670 ± 0.127]	0.844 ± 0.005 [21.440 ± 0.127]	1.968 ± 0.031 [49.990 ± 0.787]	2.781 ± 0.062 [70.640 ± 1.570]	0.630 ± 0.015 [16.000 ± 0.381]	1.140 ± 0.015 [28.960 ± 0.381]	0.610 ± 0.015 [15.490 ± 0.381]	0.088 ± 0.010 [2.240 ± 0.254]	0.260 ± 0.010 [6.600 ± 0.254]	0.196 ± 0.010 [4.980 ± 0.254]	0.125 ± 0.005 [3.180 ± 0.127]	0.107 ± 0.015 [2.720 ± 0.381]	0.085 ± 0.005 [2.160 ± 0.127]	0.438 ± 0.062 [11.130 ± 1.570]

MATERIAL SPECIFICATIONS

Element: copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: ceramic, steatite or alumina, depending on physical size

Encapsulant: silicone molded construction

Housing: aluminum with hard anodic coating

End Caps: stainless steel

Standard Terminals: tinned Copperweld®

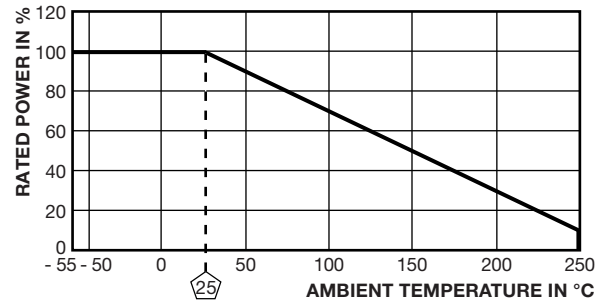
Part Marking: source code, JAN, military PIN, date/lot code

POWER RATING

Vishay RER resistor wattage ratings are based on mounting to the proper heat sink.

RER40, RER45, RER60, RER65: 4" x 6" x 2" x 0.040" thick aluminum chassis

RER50, RER55, RER70, RER75: 5" x 7" x 2" x 0.040" thick aluminum chassis

DERATING


PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Low Temperature Operation	Apply rated power until thermal stability, remove power subject to air temperature of -55 °C for 15 min to 30 min	± (0.5 % + 0.01 Ω) ΔR
Short Time Overload	5 x rated power for 5 s	± (0.3 % + 0.01 Ω) ΔR
Dielectric Withstanding Voltage	1000 V _{RMS} (RER40, RER45, RER50, RER60, RER65, RER70), 2000 V _{RMS} (RER55 and RER75), 1 min duration	± (0.2 % + 0.01 Ω) ΔR
Low Temperature Storage	-55 °C for 24 h	± (0.3 % + 0.01 Ω) ΔR
High Temperature Exposure	250 °C for 2000 h	± (1.0 % + 0.01 Ω) ΔR
Moisture Resistance	MIL-STD-202, method 106	± (0.5 % + 0.01 Ω) ΔR
Shock, Specified Pulse	MIL-STD-202, method 213, condition I	± (0.2 % + 0.01 Ω) ΔR
Vibration, High Frequency	MIL-STD-202, method 204, condition D	± (0.2 % + 0.01 Ω) ΔR
Load Life	2000 h at rated power, +25 °C, 1.5 h "ON", 0.5 h "OFF"	± (1.0 % + 0.01 Ω) ΔR
Extended Life	10 000 h at rated power, +25 °C, 1.5 h "ON", 0.5 h "OFF"	± (0.2 % + 0.01 Ω) ΔR
Terminal Strength	MIL-STD-202, method 211, condition A 5 pound (RER40, RER45, RER60, RER65), 10 pound (RER50, RER55, RER70, RER75)	± (0.2 % + 0.01 Ω) ΔR



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