



Wirewound Resistors, Military, MIL-PRF-26 Qualified, Type RW, Precision Power, Silicone Coated, Axial Lead



FEATURES

- High temperature coating (> 350 °C)
- Complete welded construction
- Qualified to MIL-PRF-26
- Excellent stability in operation (typical resistance shift < 0.5 %)

DESIGN SUPPORT TOOLS

click logo to get started

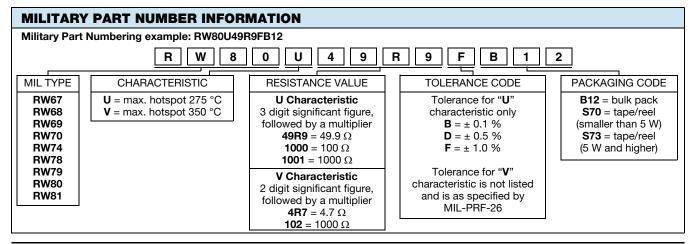


STANDARD ELECTRICAL SPECIFICATIONS							
MILITARY MODEL	VISHAY REFERENCE MODEL	POWER RATING P _{25 °C} W CHARACTERISTIC U	POWER RATING P _{25 °C} W CHARACTERISTIC V	RESISTANCE RANGE Ω ± 0.1 %	RESISTANCE RANGE Ω ± 0.5 %, ± 1 %	RESISTANCE RANGE Ω ± 5 %, ± 10 %	WEIGHT (typical) g
RW81	G001380	1.0	-	0.499 to 1K	0.1 to 1K	-	0.20
RW70	RS01A300	1.0	=	0.499 to 2.74K	0.1 to 2.74K	=	0.34
RW80	G003380	2.0	-	0.499 to 2.74K	0.1 to 2.74K	-	0.34
RW79	RS02B300	3.0	-	0.499 to 6.49K	0.1 to 6.49K	-	0.70
RW69	RS02C23	-	3.0	-	-	0.1 to 2.0K	1.6
RW74	RS00569	5.0	-	0.499 to 24.3K	0.1 to 24.3K	-	4.2
RW67	RS00570	=	6.5	=	=	0.1 to 8.2K	4.2
RW78	RS01038	10.0	=	0.499 to 71.5K	0.1 to 71.5K	-	9.0
RW68	RS01039	-	11.0	-	-	0.1 to 20K	9.0

Note

RW67, RW68, RW69 available tolerance for these MIL parts is ± 5 % for 1 Ω and above, ± 10 % below 1 Ω

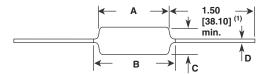
TECHNICAL SPECIFICATIONS			
PARAMETER	UNIT	RW RESISTOR CHARACTERISTICS	
Temperature Coefficient	ppm/°C	\pm 20 for 10 Ω and above, \pm 50 for 1 Ω to 9.9 $\Omega,$ \pm 90 for below 1 Ω	
Maximum Working Voltage	V	$(P \times R)^{1/2}$	
Insulation Resistance	Ω	1000 M Ω minimum dry, 100 M Ω minimum after moisture test	
Solderability	-	MIL-PRF-26 type - meets requirements of ANSI J-STD-002	
Operating Temperature Range	°C	Characteristic U = -65 to +250, characteristic V = -65 to +350	



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Vishay Dale

DIMENSIONS in inches [millimeters]



Note

(1) On some standard reel pack methods, the leads may be trimmed to a shorter length than shown

MATERIAL SPECIFICATIONS

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

Core: ceramic, steatite or alumina, depending on physical

Coating: special high temperature silicone

Standard Terminals: 60/40 Sn/Pb coated Copperweld®

End Caps: stainless steel

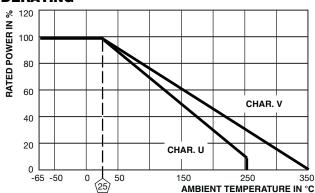
MARKING					
MODELS: RW70, RW74, RW78, RW79, RW80, RW81	MODELS: RW67, RW68, RW69				
Characteristic U	Characteristic V				
Tolerance code: B = 0.1 %, D = 0.5 %, F = 1 %	Tolerance code: not listed				
Example	Example				
Dale	Dale				
RW80U Model	RW68 Model				
1001F Characteristic, value	V100 Characteristic, value				
0703 Date code	M0202 Date code				

MILITARY	DIMENSIONS in inches [millimeters]						
MODEL	A	B ⁽¹⁾ (max.)	С	D			
RW81	0.250 ± 0.031	0.281	0.085 ± 0.020	0.020 ± 0.002			
	[6.35 ± 0.787]	[7.14]	[2.16 ± 0.508]	[0.508 ± 0.051]			
RW70	0.406 ± 0.031	0.437	0.094 ± 0.031	0.020 ± 0.002			
RW80	[10.31 ± 0.787]	[11.10]	[2.39 ± 0.787]	[0.508 ± 0.051]			
RW79	0.560 ± 0.062	0.622	0.187 ± 0.031	0.032 ± 0.002			
	[14.22 ± 1.57]	[15.80]	[4.75 ± 0.787]	[0.813 ± 0.051]			
RW69	0.500 ± 0.062	0.593	0.218 ± 0.031	0.032 ± 0.002			
	[12.70 ± 1.57]	[15.06]	[5.54 ± 0.787]	[0.813 ± 0.051]			
RW74	0.875 ± 0.062	1.0	0.312 ± 0.031	0.040 ± 0.002			
RW67	[22.23 ± 1.57]	[25.4]	[7.92 ± 0.787]	[1.02 ± 0.051]			
RW78	1.78 ± 0.062	1.87	0.375 ± 0.031	0.040 ± 0.002			
	[45.21 ± 1.57]	[47.50]	[9.53 ± 0.787]	[1.02 ± 0.051]			
RW68	1.875 + 0.063 - 0.125	1.94	0.344 ± 0.094	0.040 ± 0.002			
	[47.63 + 1.60 - 3.18]	[49.28]	[8.74 ± 2.39]	[1.02 ± 0.051]			

Note

(1) B (max.) dimension is clean lead to clean lead

DERATING



PERFORMANCE						
TEST	CONDITIONS OF TEST	TEST LIMITS				
1531	CONDITIONS OF TEST	CHARACTERISTIC U	CHARACTERISTIC V			
Thermal Shock	Rated power applied until thermally stable, then a minimum of 15 min at -55 °C	$\pm (0.2 \% + 0.05 \Omega) \Delta R$	$\pm (2.0 \% + 0.05 \Omega) \Delta R$			
Short Time Overload	5x rated power (3.75 W and smaller), 10 x rated power (4 W and larger) for 5 s	$\pm (0.2 \% + 0.05 \Omega) \Delta R$	$\pm (2.0 \% + 0.05 \Omega) \Delta R$			
Dielectric Withstanding Voltage	500 V _{RMS} min. (RW70, RW80, RW81), 1000 V _{RMS} for all others, duration of 1 min	\pm (0.1 % + 0.05 Ω) ΔR	$\pm (0.1 \% + 0.05 \Omega) \Delta R$			
Low Temperature Storage	-65 °C for 24 h	$\pm (0.2 \% + 0.05 \Omega) \Delta R$	\pm (2.0 % + 0.05 Ω) ΔR			
High Temperature Exposure	250 h at: U = +250 °C, V = +350 °C	$\pm (0.5 \% + 0.05 \Omega) \Delta R$	$\pm (2.0 \% + 0.05 \Omega) \Delta R$			
Moisture Resistance	MIL-STD-202 Method 106, 7b not applicable	\pm (0.2 % + 0.05 Ω) ΔR	\pm (2.0 % + 0.05 Ω) ΔR			
Shock, Specified Pulse	MIL-STD-202 Method 213, 100 g's for 6 ms, 10 shocks	\pm (0.1 % + 0.05 Ω) ΔR	$\pm (0.2 \% + 0.05 \Omega) \Delta R$			
Vibration, High Frequency	Frequency varied 10 Hz to 2000 Hz, 20 g peak, 2 directions 6 h each	\pm (0.1 % + 0.05 Ω) ΔR	$\pm (0.2 \% + 0.05 \Omega) \Delta R$			
Load Life	2000 h at rated power, +25 °C, 1.5 h "ON", 0.5 h "OFF"	$\pm (0.5 \% + 0.05 \Omega) \Delta R$	$\pm (3.0 \% + 0.05 \Omega) \Delta R$			
Terminal Strength	Pull test 5 s to 10 s, 5 lb (RW70, RW80, RW81), 10 lb for all others; torsion test - 3 alternating directions, 360° each	$\pm (0.1 \% + 0.05 \Omega) \Delta R$	$\pm (1.0 \% + 0.05 \Omega) \Delta R$			

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