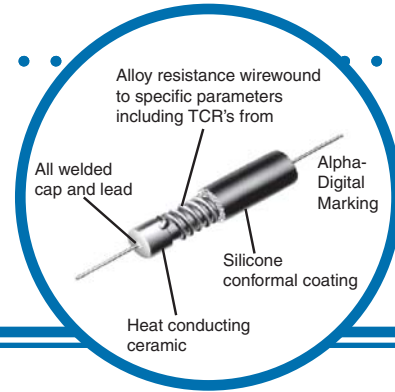


# Semi-Precision Power Wirewound Resistor

## AS / NAS Series

- 1/4 watt to 10 watts
- 0.1 ohm to 175K ohms
- $\pm 5\%$ ,  $\pm 3\%$ ,  $\pm 1\%$ ,  $\pm .5\%$  tolerance
- Resistance wire TCR  $\pm 20$  ppm/ $^{\circ}\text{C}$
- RoHS-compliant version available



## Electrical Data

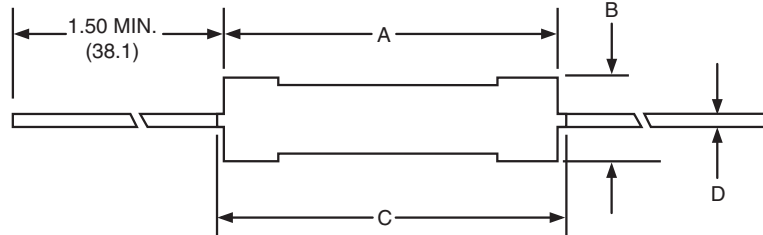
IRC Type	Similar MIL-R-26 Style	Power Rating 275 $^{\circ}\text{C}$ Max. Hot Spot		AS / Commercial Range (ohms)		NAS / Non-Inductive Range (ohms)		Available Resistance (ohms)	
		125 $^{\circ}\text{C}$	25 $^{\circ}\text{C}$	Min.	Max.	Min.	Max.	0.5%, 1%	3%, 5%
AS-1/4 NAS-1/4	RW81	0.25	1	0.1	1.0K	0.2	60	1-1K	0.1-1K
AS-1/2 NAS-1/2		0.5	1	0.1	6.0K	0.5	60	1-6K	0.1-6K
AS-1 NAS-1	RW70U	1	2	0.1	7.5K	0.2	3.8K	1-7.5K	0.1-7.5K
AS-1C NAS-1C		1	2	.05	2K	10	1K	1-2K	.05-2K
AS-2 NAS-2	RW79U	2	3	0.1	20K	0.25	10K	1-20K	0.1-20K
AS-2B NAS-2B		3	4	0.1	24K	0.1	12K	1-24K	0.1-24K
AS-2C NAS-2C		2	3	0.1	18K	0.2	7.5K	1-18K	0.1-18K
AS-3 NAS-3		3	5	0.1	30K	0.1	15K	1-30K	0.1-30K
AS-5 NAS-5	RW74U	5	7	0.1	60K	0.1	30K	1-60K	0.1-60K
AS-7 NAS-7		7	9	0.1	90K	0.2	45K	1-90K	0.1-90K
AS-10 NAS-10	RW78U	10	14	0.1	175K	0.2	50K	1-175K	0.1-175K

### General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

# Semi-Precision Power Wirewound Resistor

## Physical Data



Please note lead length dimension change on the following two items only:  
 AS / NAS -2B 1.3 min.  
 AS / NAS -2C 1.3 min.

**NOTE:**  
 • Coating and marking is resistant to normal degreasing. Consult factory for special requirements.

IRC Type	A±0.032	B (max)	C (max)	D (Lead Diameter)
AS-1/4 NAS-1/4	0.250 (6.4)	0.094 (2.4)	0.312 (7.9)	0.020 (0.5)
AS-1/2 NAS-1/2	0.312 (7.9)	0.094 (2.4)	0.375 (9.5)	0.020 (0.5)
AS-1 NAS-1	0.367 (9.3)	0.125 (3.2)	0.429 (10.9)	0.020 (0.5) 0.025 (0.64)
AS-1C NAS-1C	0.256 (6.5)	0.115 (2.9)	0.303 (7.7)	0.025 (0.64) 0.032 (0.8)
AS-2 NAS-2	0.480 (12.2)	0.250 (6.3)	0.600 (15.2)	0.032 (0.8)
AS-2B NAS-2B	0.540 (13.7)	0.219 (5.6)	0.663 (16.6)	0.032 (0.8)
AS-2C NAS-2C	0.489 (11.0)	0.157 (4.0)	0.594 (15.1)	0.032 (0.8)
AS-3 NAS-3	0.687 (17.5)	0.282 (7.2)	0.812 (20.6)	0.040 (1.0)
AS-5 NAS-5	0.875 (22.2)	0.344 (8.8)	0.980 (24.9)	0.040 (1.0)
AS-7 NAS-7	1.250 (31.8)	0.344 (8.8)	1.375 (35.0)	0.040 (1.0)
AS-10 NAS-10	1.812 (46.0)	0.385 (9.8)	1.937 (49.2)	0.040 (1.0)

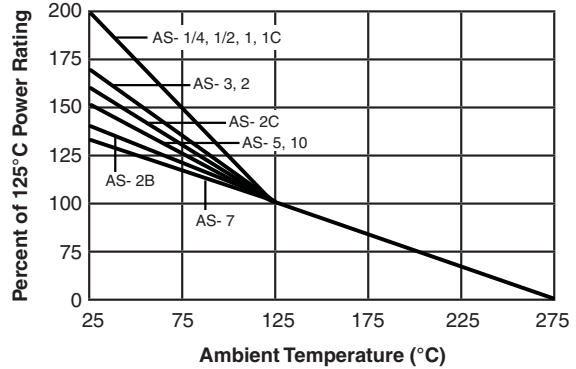
# Semi-Precision Power Wirewound Resistor



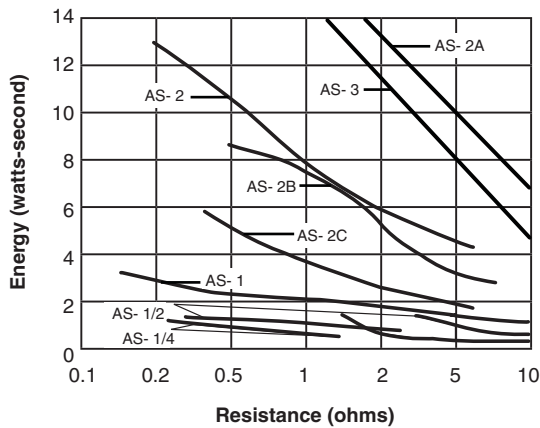
## Environmental Testing at 25°C

Test Condition	Max ΔR
Load Life 1000 hours	1.0%
Moisture Resistance	1.0%
Temperature Cycle	0.5%
Short Time Overload	0.5%
Low Temperature Operation	0.5%
Solder Heat	0.25%
Shock	0.5%
Vibration	0.5%

## Power Derating Curve



## Selected Pulse-Handling Capability @ 125°C



## Ordering Data

Sample Part No. .... **AS** **3** **27R0** **F** **LF** **XXX**

**IRC Type** .....  
 Non-inductive styles will be indicated as NAS

**Power** .....  
 3 = 3 watts (See specification chart for other power ratings)

**Resistance Value** .....  
 (100 ohms and greater - First 3 significant digits plus 4th digit multiplier)  
 Example: 100 ohms = 1000, 1000 ohms = 1001, 150,000 ohms = 1503  
 (Less than 100 ohms - "R" is used to designate decimal)  
 Example: 51 ohms = 51R0, 1 ohm = 1R00, 0.25 ohms = R250

**Tolerance** .....  
 J = ±5%; H = ±3%; F = ±1%; D = ±0.5%

**Lead Free Construction** .....  
 RoHS compliance status: products carrying the LF designator will provide 100% Matte Sn plated leads. Omission of the LF designator explicitly specifies standard Sn/Pb plated lead wires.

**Specification Number (Optional)** .....  
 Custom design identifier for non-standard products