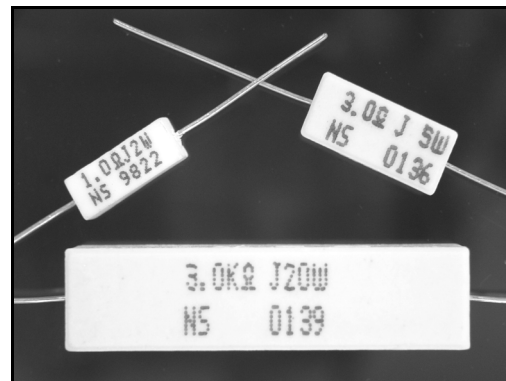


NSP Series — Ceramic Housed - Consumer Grade

Features

- Flameproof construction
- Temperature coefficient of resistance of $\pm 200 \text{ ppm}/^\circ\text{C}$
- Low resistance values
- Power derating is linear from 100% at 25°C to zero at 250°C
- Also available with standoffs
- Other styles and configurations available; contact factory
- RoHS compliant / lead-free

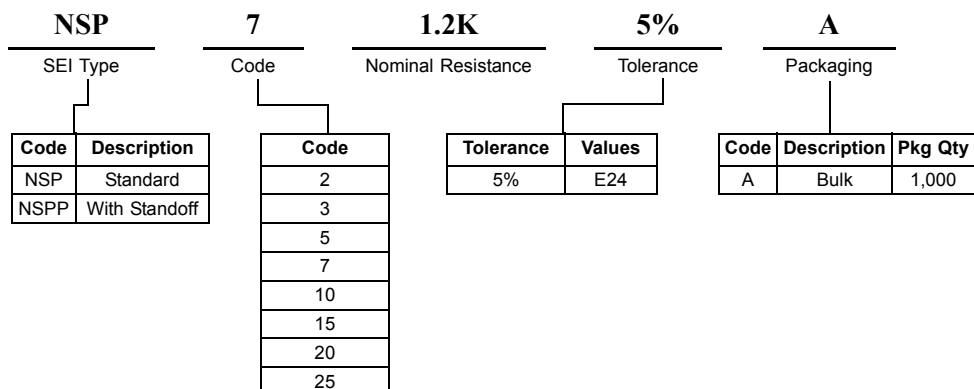


Electrical Specifications

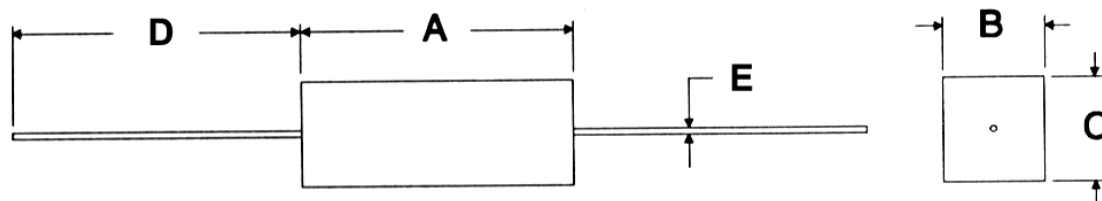
| Type / Code | Power Rating (Watts) @ 25°C | Maximum Working Voltage* | Resistance Temperature Coefficient | Ohmic Range and Tolerance |
|-------------|---|--------------------------|--------------------------------------|---------------------------|
| | | | | 5% |
| NSP 2 | 2W | 100 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 20K |
| NSP 3 | 3W | 200 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 20K |
| NSP 5 | 5W | 300 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 20K |
| NSP 7 | 7W | 350 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 20K |
| NSP 10 | 10W | 500 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 20K |
| NSP 15 | 15W | 600 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 2K |
| NSP 20 | 20W | 700 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 2K |
| NSP 25 | 25W | 700 | $\pm 200 \text{ ppm}/^\circ\text{C}$ | 0.1 Ω – 5.1K |

* Lesser of $\sqrt{\text{PR}}$ or maximum working voltage.

How to Order



NSP Series — Ceramic Housed - Consumer Grade



Mechanical Specifications

| Type / Code | A Body Length | B Body Width | C Body Height | D Lead Length (Bulk) | E Lead Diameter | Units |
|-------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------------|--------------|
| NSP 2 | 0.71 ± 0.02 18.0 ± 0.5 | 0.28 ± 0.04 7.0 ± 1.0 | 0.28 ± 0.04 7.0 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.026 ± 0.002 0.65 ± 0.05 | inches mm |
| NSP 3 | 0.87 ± 0.02 22.0 ± 0.5 | 0.32 ± 0.04 8.0 ± 1.0 | 0.32 ± 0.04 8.0 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |
| NSP 5 | 0.87 ± 0.02 22.0 ± 0.5 | 0.40 ± 0.04 10.0 ± 1.0 | 0.35 ± 0.04 10.0 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |
| NSP 7 | 1.38 ± 0.02 35.0 ± 0.5 | 0.40 ± 0.04 10.0 ± 1.0 | 0.35 ± 0.04 10.0 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |
| NSP 10 | 1.89 ± 0.02 48.0 ± 0.5 | 0.40 ± 0.04 10.0 ± 1.0 | 0.35 ± 0.04 10.0 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |
| NSP 15 | 1.89 ± 0.02 48.0 ± 0.5 | 0.49 ± 0.04 12.5 ± 1.0 | 0.49 ± 0.04 12.5 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |
| NSP 20 | 2.36 ± 0.04 60.0 ± 1.0 | 0.57 ± 0.04 14.5 ± 1.0 | 0.53 ± 0.04 13.5 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |
| NSP 25 | 2.36 ± 0.04 60.0 ± 1.0 | 0.57 ± 0.04 14.5 ± 1.0 | 0.53 ± 0.04 13.5 ± 1.0 | 1.42 ± 0.12 36.0 ± 3.0 | 0.032 ± 0.002 0.80 ± 0.05 | inches mm |

*Contact factory for dimensions with standoffs.

Performance Characteristics

| Test | Test Results |
|---------------------------------|-----------------|
| Moisture Resistance | ±5% |
| Thermal Shock | ±2% |
| Load Life @ 70°C – 1,000 hrs. | ±5% |
| Resistance to Soldering Heat | ±2% |
| Short Time Overload | ±2% |
| Dielectric Withstanding Voltage | ±2% |
| Operating Temperature Range | -55°C to +250°C |