

Fibre Core Conformal Coated Wirewound Resistor



SPP Series



Features

- UL1412 recognised fusing *
- Coated or uncoated units
- Positive high TC's upon request
- Colorband standard identification
- Lower ranges available - contact factory
- Weldable and solderable magnetic leads

* UL file number E234469



All Pb-free parts comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

| IRC Type | SPP-1 | | SPP-2 | | SPP-3 | |
|------------------------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|
| Resistance - Std. | 0.1Ω to 1200Ω | | 0.1Ω to 2400Ω | | 0.1Ω to 2400Ω | |
| UL Recognised Range | 1 Ω to 470 Ω | | 1 Ω to 470 Ω | | --- | |
| Tolerance - Std. | ±5% (E24), ±10% (E12) | | | | | |
| Power Rating | 1W @ 85°C | | 2W @ 85°C | | 3W ² @ 85°C | |
| Load Life Stability | 1 watt @ 85°C ± 10% | | 2 watt @ 85°C ± 10% | | 3 watt @ 85°C ± 10% | |
| Max. Continuous Working Voltage | \sqrt{PR} | | \sqrt{PR} | | 75V | |
| Min. Insulation Resistance | Dry | 10,000 Meg | | 10,000 Meg | | 10,000 Meg |
| | Wet | 100 Meg | | 100 Meg | | 100 Meg |
| Min. Dielectric Withstanding Volts (RMS) | 600V | | 600V | | 600V | |
| Current Noise | Negligible | | Negligible | | Negligible | |
| Temperature Coefficient | ±600ppm/°C 0.10Ω - 0.91Ω | ±300ppm/°C 1Ω - 1200Ω | ±600ppm/°C 0.10Ω - 0.91Ω | ±300ppm/°C 1Ω - 2400Ω | ±600ppm/°C 0.10Ω - 0.91Ω | ±300ppm/°C 1Ω - 2400Ω |
| Ambient Temperature Range | -65 to 160°C | | | | | |

Notes:

1. Unless specified otherwise, standard test centers are 1 ¼ inches.

2. To dissipate full rated power forced air cooling must be provided to restrict the maximum body temperature to 180°C.

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.

All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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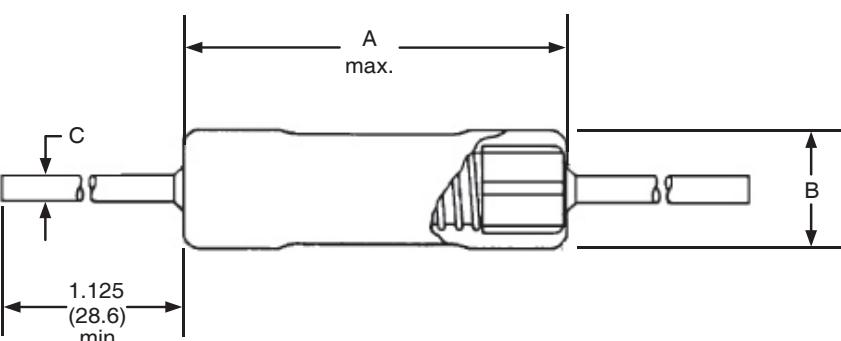


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Environmental Data

| Characteristics | Maximum Limits |
|--------------------------------|--------------------------|
| Thermal Shock | ±5% |
| Low Temperature Operation | ±5% |
| Short Time Overload | ±5% |
| Commercial Short Time Overload | ±5% |
| Resistance to Solder Immersion | ±3% |
| Solderability | 95% minimum coverage |
| Moisture Resistance | ±5% |
| Life Test | ±5% |
| Test Method | EIA Specification RS-344 |

Physical Data

|  | | | |
|--------------------------------------------------------------------------------------|------------------|-----------------|----------------|
| Dimensions (Inches and (mm)) | | | |
| IRC Type | A | B | C ± .002(0.05) |
| SPP-1 | 0.400(10.2) max. | 0.148(3.8) max. | 0.032(0.8) |
| SPP-2 | 0.570(14.5) max. | 0.170(4.3) max. | 0.032(0.8) |
| SPP-3 | 0.570(14.5) max | 0.170(4.3) max. | 0.032(0.8) |

Marking

SPP is marked with five colour bands. Two indicate value followed by one for the multiplier, one tolerance band, and a blue band indicating flameproof fusible.

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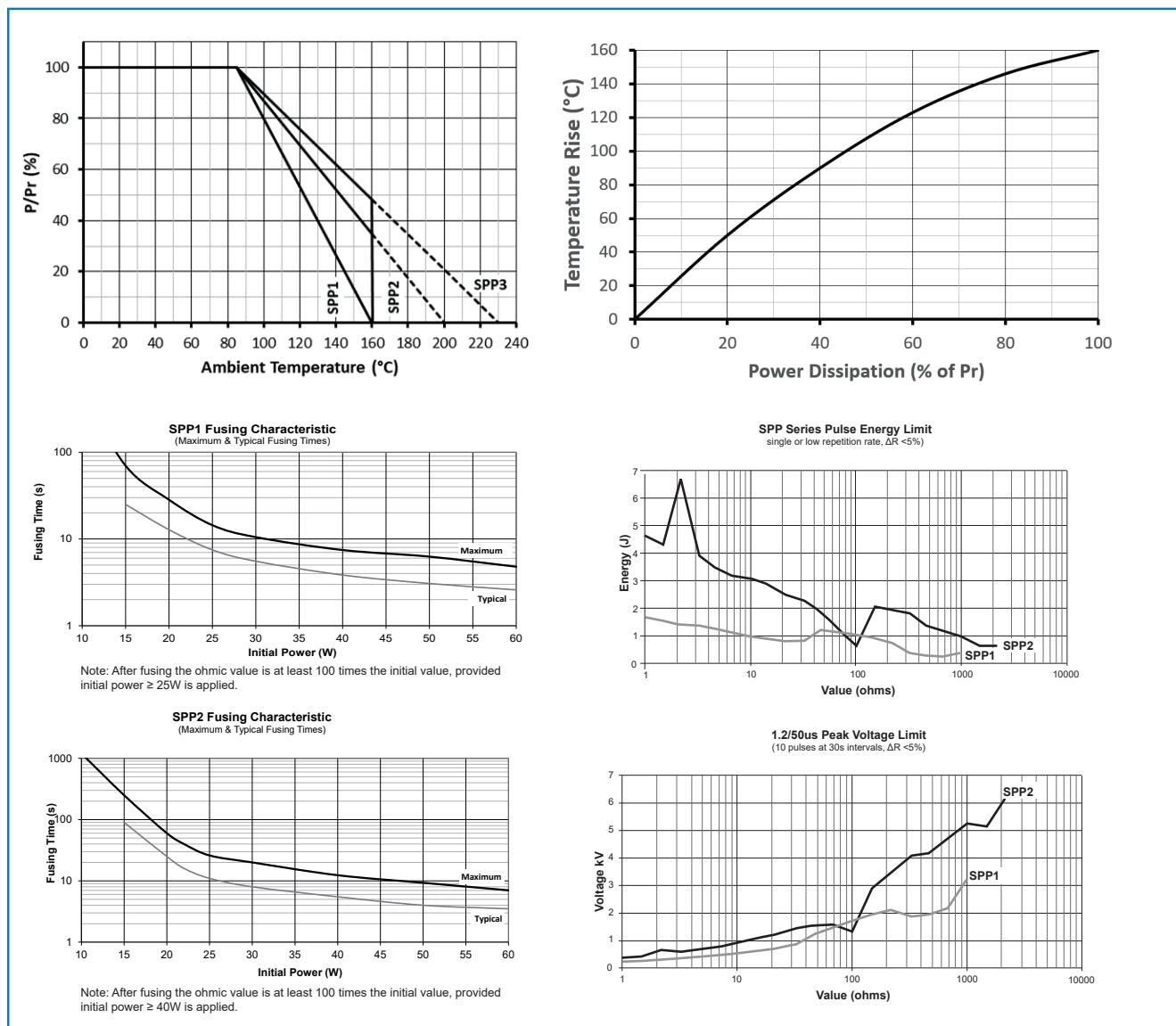
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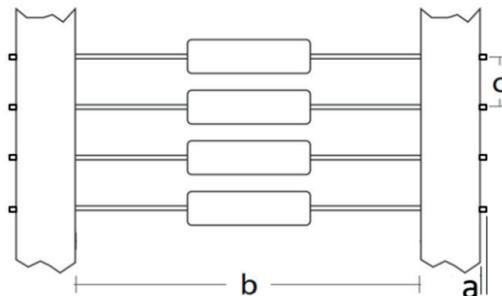


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Packaging

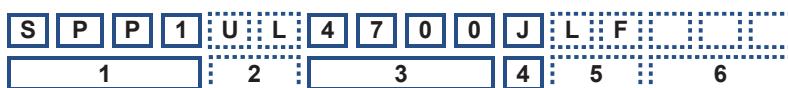
Resistors are supplied taped and reeled (see Ordering Procedure for reel quantities.) The taping dimensions are shown below.

| Taping dimensions, inches (mm) | | | |
|--------------------------------|-------------|------------------------|---------------------|
| Type | a max | b | c |
| SPP-1, SPP-2, SPP-3 | 0.41 (10.4) | 2.062±0.062 (52.4±1.6) | 0.2±0.015 (5.1±0.4) |



Ordering Procedure

Example: SPP1UL4700JLF (SPP1, UL recognised, 470 ohms ±5%, Pb-free)



| 1 Type | 2 UL Status | 3 Value | 4 Tolerance | 5 Packing & Termination Finish | 6 Custom Code |
|-----------|----------------------------------------------------------------------|----------------------------------|----------------|-----------------------------------------------|---------------------|
| SPP1 | UL = UL recognised | 3 digits + multiplier | J = ±5% | Omit for SnPb | Optional |
| SPP2 | (SPP1 & SPP2 only, see Electrical Data for applicable values.) | R = ohms for values <100 ohms | K = ±10% | LF = Pb-free | |
| SPP3 | | | | Standard packing is tape & reel, 4000/reel | |

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