

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.

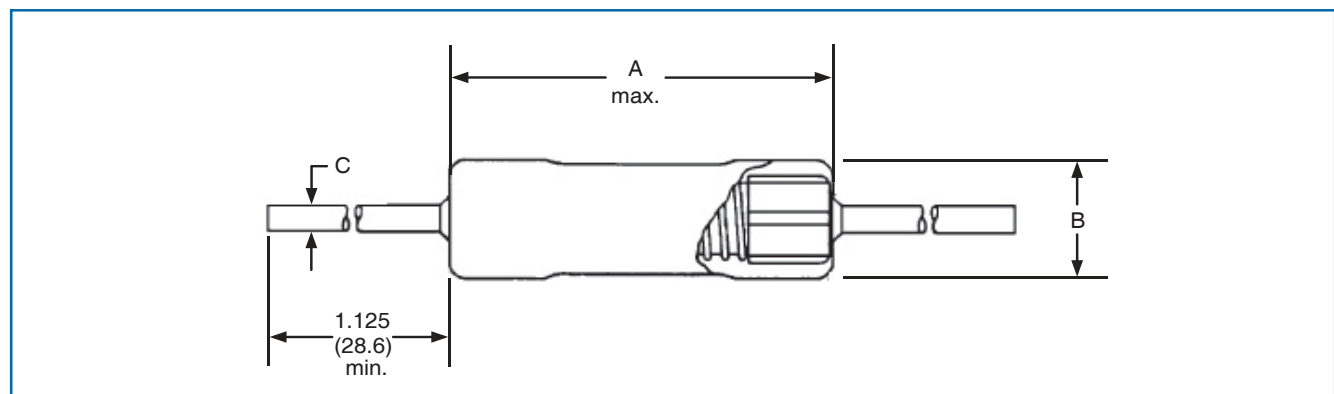
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Environmental Data

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

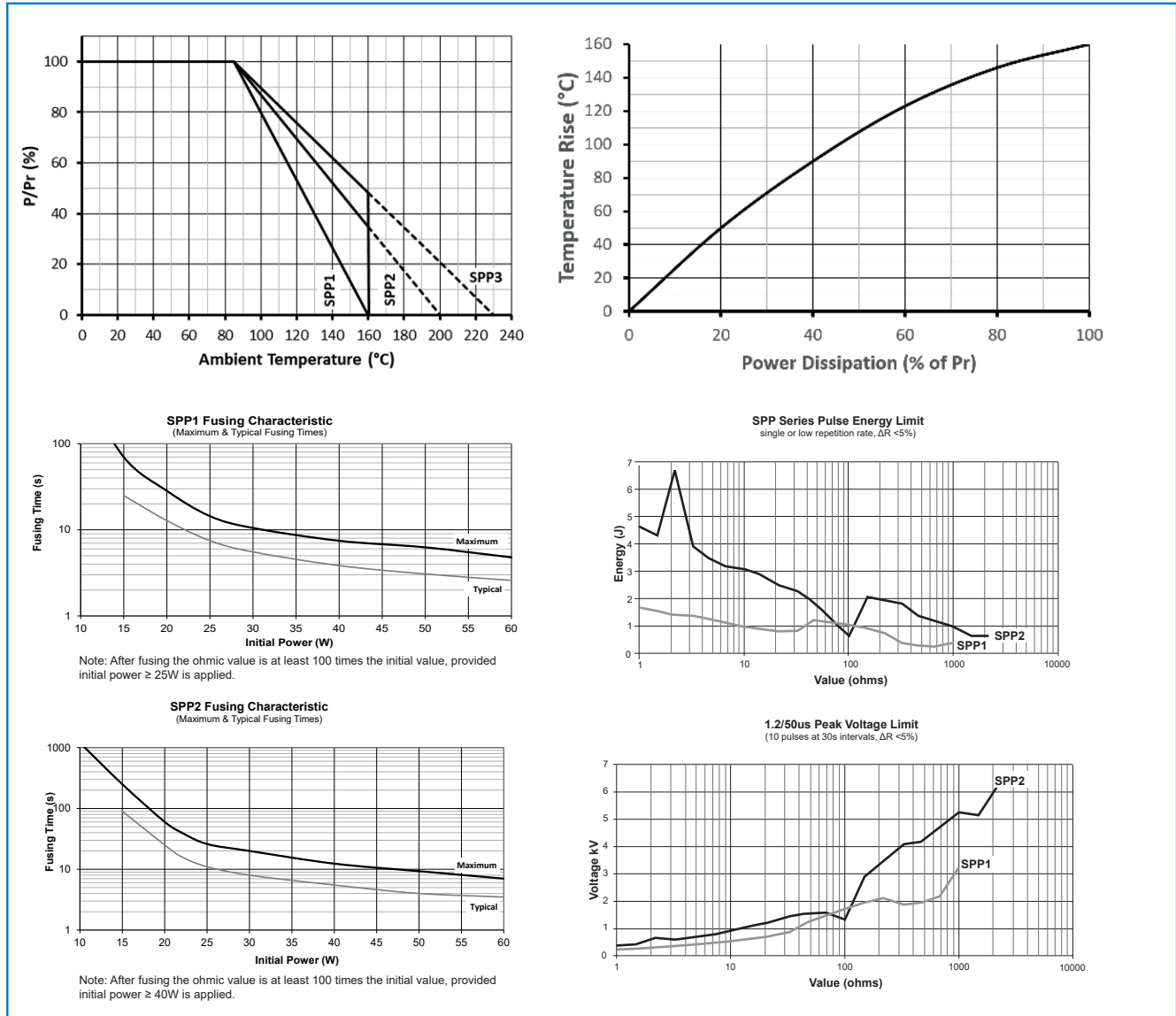
SPP is marked with five colour bands. Two indicate value followed by one for the multiplier, one tolerance band, and a blue band indicating flameproof fusible.

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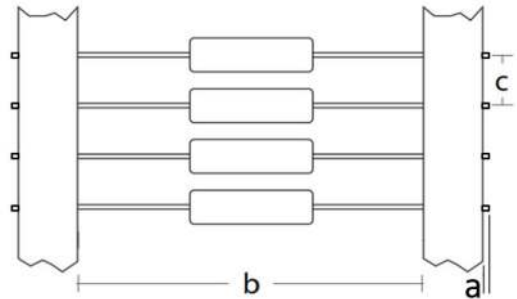
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Packaging

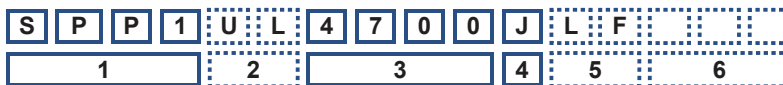
Resistors are supplied taped and reeled (see Ordering Procedure for reel quantities.) The taping dimensions are shown below.

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	2	3	4	5	6
Type	UL Status	Value	Tolerance	Packing & Termination Finish	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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