



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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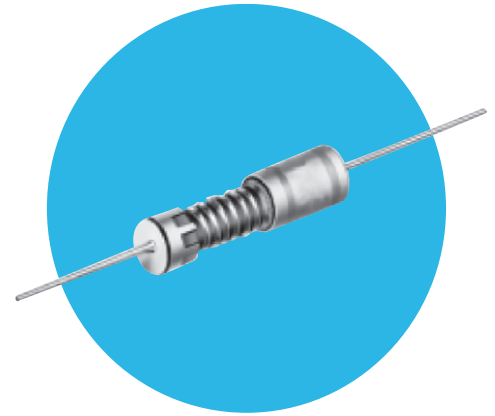
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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Resistors

Fibre Core Conformal Coated Wirewound Resistor



SPP Series

- UL1412 recognised fusing *
- Coated or uncoated units
- Positive high TC's upon request
- Color band 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	1 watt @ 85°C 3/4 watt @ 105°C 1/2 watt @ 125°C Derating to 0 @ 160°C		2 watt @ 85°C 1 watt @ 140°C --- ---		3 watt @ 85°C 2 watt @ 145°C 1 watt @ 190°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}		\sqrt{PR}	
Min. Insulation Resistance	Dry	10,000 Meg	Dry	10,000 Meg	Dry	10,000 Meg
	Wet	100 Meg	Wet	100 Meg	Wet	100 Meg
Min. Dielectric Withstanding Volts (RMS)	600V		600V		600V	
Current Noise	Negligible		Negligible		Negligible	
Temperature Rise at Rated Load, 25°C Ambient	Approx. 150°C		Approx. 200°C		Approx. 225°C	
Temperature Coefficient	±600/°C	±300/°C	±600/°C	±300/°C	±600/°C	±300/°C
	0.10Ω - 0.91Ω	1Ω - 1200Ω	0.10Ω - 0.91Ω	1Ω - 2400Ω	0.10Ω - 0.91Ω	1Ω - 2400Ω

Notes:

Unless specified otherwise, standard test centers are 1 3/4 inches.

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.

BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

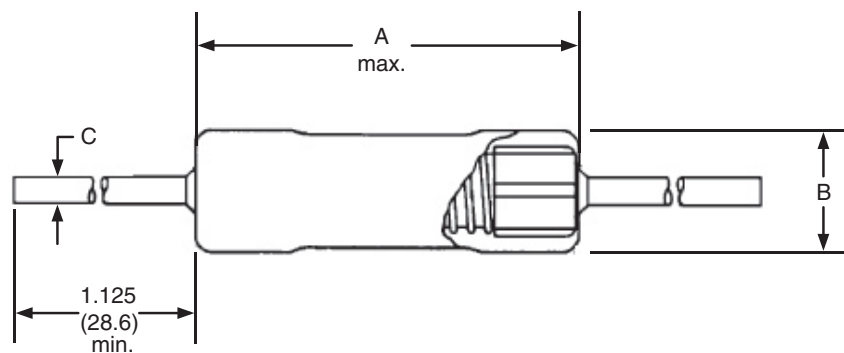
Fibre Core Conformal Wirewound Resistor

SPP Series

Environmental Data

Characteristics	Maximum Limits	
Temperature Coefficient (ppm/°C)	SPP-1	±600/°C 0.10Ω - 0.91Ω ±300/°C 1.0Ω - 1200Ω
	SPP-2	±600/°C 0.10Ω - 0.91Ω ±300/°C 1.0Ω - 2400Ω
	SPP-3	±600/°C 0.10Ω - 0.91Ω ±600/°C 1.0Ω - 2400Ω
Thermal Shock	±5%	
Low Shock	±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))

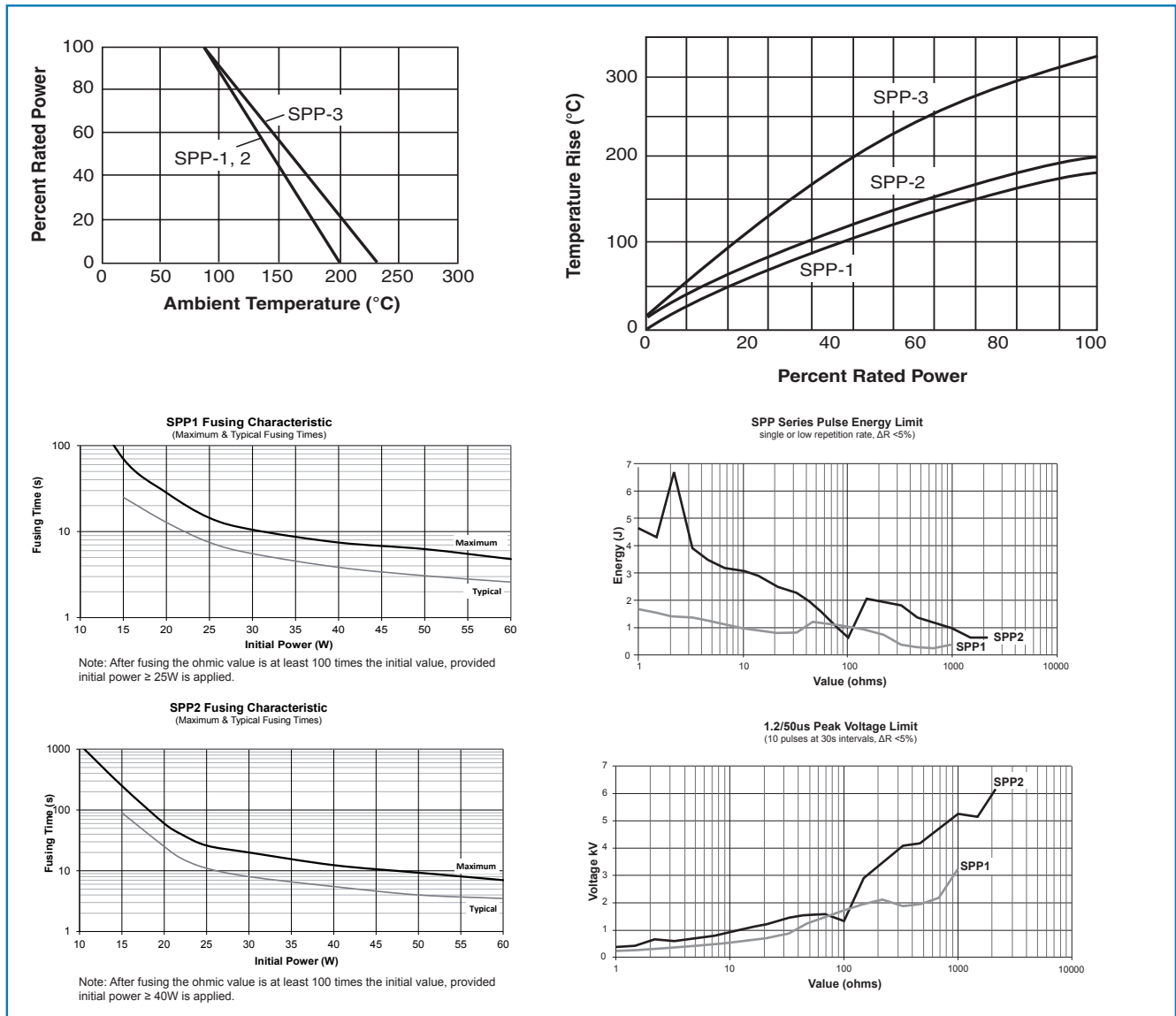
IRC Type	A	B	C ± .002(0.05)
SPP-1	0.400(10.2) max.	0.148(3.8) max.	0.032(0.8)
SPP-2	0.570(14.5) max.	0.170(4.3) max.	0.032(0.8)
SPP-3	0.570(14.5) max.	0.170(4.3) max.	0.032(0.8)

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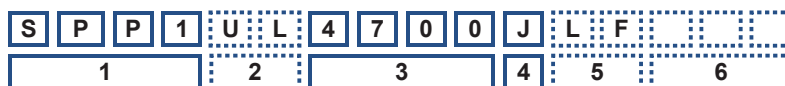
Fibre Core Conformal Wirewound Resistor

SPP Series



Ordering Procedure

Example: SPP1UL4700JLF (SPP1, UL recognised, 470 ohms $\pm 5\%$, 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 = $\pm 5\%$	Omit for SnPb	Optional
SPP2	(SPP1 & SPP2 only, see Electrical Data for applicable values.)	R = ohms for values <100 ohms	K = $\pm 10\%$	LF = Pb-free	Standard packing is tape & reel, 4000/reel
SPP3					

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