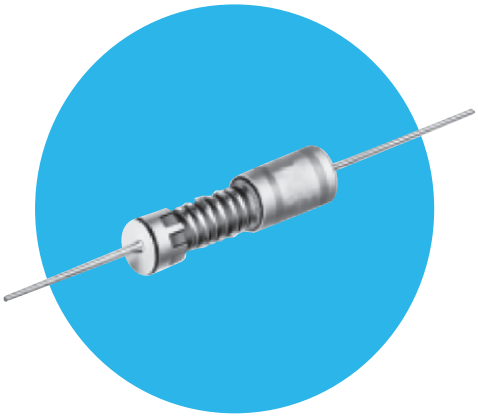
Resistors

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

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 Wet	10,000 Meg 100 Meg		10,000 Meg 100 Meg		10,000 Meg 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 0.10Ω - 0.91Ω	±300/°C 1Ω - 1200Ω	±600/°C 0.10Ω - 0.91Ω	±300/°C 1Ω - 2400Ω	±600/°C 0.10Ω - 0.91Ω	±300/°C 1Ω - 2400Ω

Notes:
Unless specified otherwise, standard test centers are 1 ¾ 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

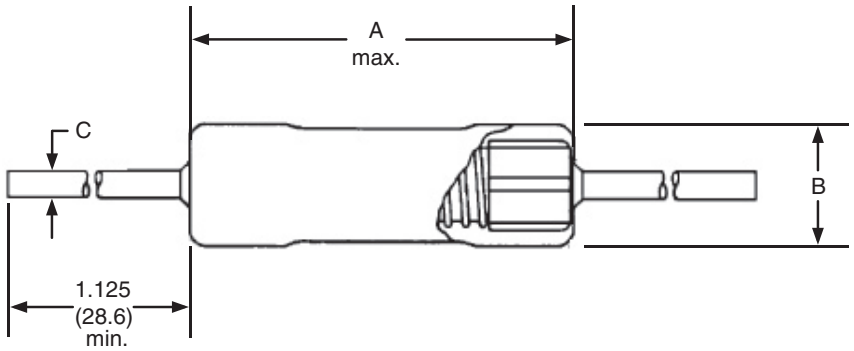
www.ttelectronicsresistors.com

© TT Electronics plc

Environmental Data

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



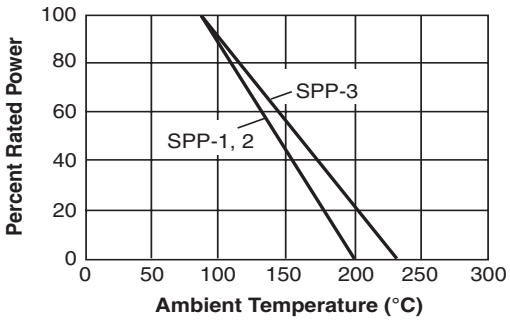
Dimensions (Inches and (mm))			
IRC Type	A	B	C ± .002(0.05)
SPP-1	0.400(10.2) max.	0.148(3.8) max.	0.032(0.8)
SPP-2	0.570(14.5) max.	0.170(4.3) max.	0.032(0.8)
SPP-3	0.570(14.5) max	0.170(4.3) max.	0.032(0.8)

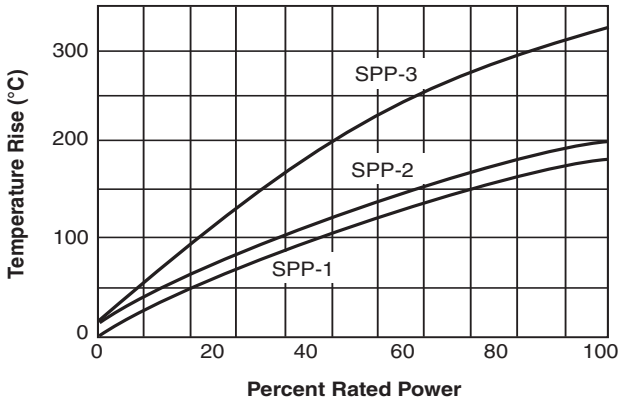
General Note
TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Bi technologies IRC Welwyn

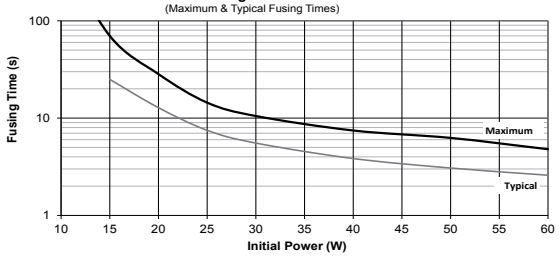
www.ttelectronicsresistors.com

© TT Electronics plc



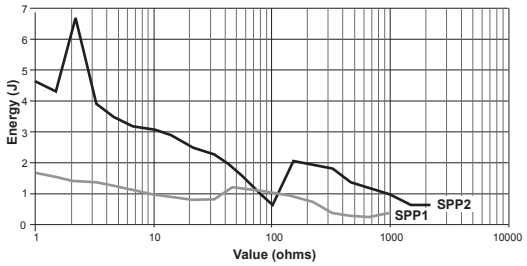


SPP1 Fusing Characteristic
(Maximum & Typical Fusing Times)

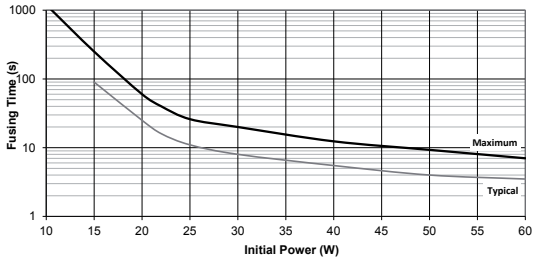


Note: After fusing the ohmic value is at least 100 times the initial value, provided initial power ≥ 25W is applied.

SPP Series Pulse Energy Limit
single or low repetition rate, ΔR <5%)

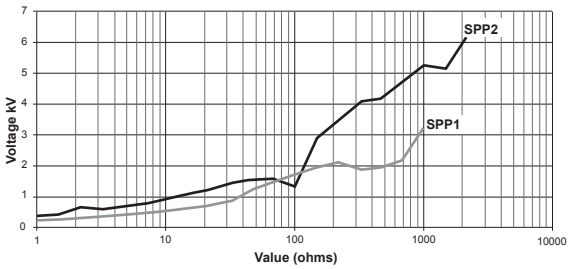


SPP2 Fusing Characteristic
(Maximum & Typical Fusing Times)



Note: After fusing the ohmic value is at least 100 times the initial value, provided initial power ≥ 40W is applied.

1.2/50us Peak Voltage Limit
(10 pulses at 30s intervals, ΔR <5%)



Ordering Procedure

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

S	P	P	1	U	L	4	7	0	0	J	L	F			
1				2		3				4	5		6		

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	

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.ttelectronicsresistors.com

© TT Electronics plc