

SPJ3000 Series

Non-magnetic Chip Resistors



- Resistances from 1 Ohm to 10M Ohms
- Power Rating 0.05 to 0.25Watt
- Resistance Tolerances to $\pm 1\%$
- TCR's to ± 50 ppm/K
- Non-Magnetic (contact PtAg)
- Suitable for Glueing or Soldering
- Sizes: 0402 / 0603 / 0805 / 1206 / 2010 / 2512 / 4020



SPECIFICATIONS

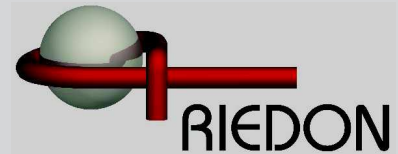
Type	SPJ3001 (0402)	SPJ3002 (0603)	SPJ3003 (0805)	SPJ3004 (1206)	SPJ3005 (2010)	SPJ3006 (2512)	SPJ3007 (4020)	
Power Rating (W) ¹	0.05	0.10	0.125	0.25	0.50	1.0	1.5	
Working Voltage (VAC)	Trimmed	30	75	100	200	250	300	500
	Untrimmed	60	150	200	400	900	1200	1200
Resistance Range (Ω)	Tolerances Available (%) Temperature Coefficients Available (\pm ppm/K) (others upon request)							
1 Ω - <10 Ω	10% to 20% 250	5% to 20% 100 / 250	5% to 20% 100 / 250	5% to 20% 100 / 250	5% to 20% 100 / 250	5% to 20% 100 / 250	5% to 20% 250	
10 Ω - <100 Ω	5% to 10% 100	2% to 10% 50 / 100	2% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 100 / 250	
100 Ω - 1M	2% to 10% 50 / 100	2% to 10% 50 / 100	2% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	
>1M - 10M	5% to 20% 50 / 100	2% to 10% 50 / 100	2% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	1% to 10% 50 / 100	

¹W @ 70 °C / 0W @ 155 °C

Specification	Value
Temperature Range	-55°C to +300°C (TCR valid +25°C to +125°C)
Climactic Category	55 / 155 / 56
Solderability	250°C / 3s (up to 6 month after shipment resp. at storage in Nitrogen)
Max. Soldering Temperature	260°C / 10s

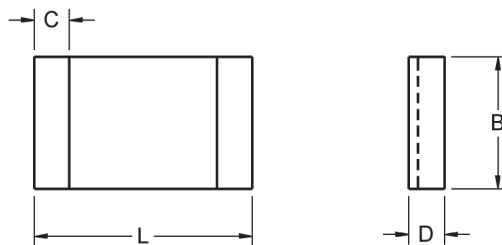
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SPECIFICATIONS (continued)

Long Term Stability	Max ΔR	
	<10 Ω	10 Ω - 10M
Storage 125°C / 1000h	$\pm 1\%$	$\pm 0.5\%$
Storage 155°C / 1000h	$\pm 2\%$	$\pm 1\%$
Load Life / P=70% / 70°C / 1000h	$\pm 1\%$	$\pm 0.5\%$
Short term overload	$\pm 0.5\%$	$\pm 0.25\%$
Humidity / 96%RH / 40°C / 56 days	$\pm 1\%$	$\pm 0.5\%$



Type	Dimensions			
	L	B	D	C
SPJ3001 (0402)	0.040 ± 0.006 [1.04 ± 0.15]	0.020 ± 0.006 [0.5 ± 0.15]	0.012 ± 0.002 [0.3 ± 0.05]	0.004 $+0.004 / -0.002$ [0.1 $+0.1 / -0.05$]
SPJ3002 (0603)	0.060 $+0.006 / -0.002$ [1.5 $+0.15 / -0.05$]	0.030 $+0.008 / -0.002$ [0.8 $+0.2 / -0.05$]	0.016 $+0.006 / -0.002$ [0.4 $+0.15 / -0.05$]	0.008 $+0.008 / -0.004$ [0.2 $+0.2 / -0.1$]
SPJ3003 (0805)	0.080 $+0.006 / -0.002$ [2.0 $+0.15 / -0.05$]	0.050 $+0.006 / -0.002$ [1.25 $+0.15 / -0.05$]	0.016 $+0.006 / -0.002$ [0.4 $+0.15 / -0.05$]	0.012 $+0.008 / -0.004$ [0.3 $+0.2 / -0.1$]
SPJ3004 (1206)	0.120 $+0.006 / -0.002$ [3.2 $+0.15 / -0.05$]	0.060 $+0.008 / -0.002$ [1.5 $+0.2 / -0.05$]	0.016 $+0.006 / -0.002$ [0.4 $+0.15 / -0.05$]	0.012 $+0.008 / -0.004$ [0.3 $+0.2 / -0.1$]
SPJ3005 (2010)	0.200 $+0.006 / -0.002$ [5.1 $+0.15 / -0.05$]	0.100 $+0.008 / -0.002$ [2.5 $+0.2 / -0.05$]	0.024 $+0.008 / -0.004$ [0.6 $+0.20 / -0.1$]	0.047 ± 0.008 [1.2 ± 0.2]
SPJ3006 (2512)	0.250 $+0.006 / -0.002$ [6.2 $+0.15 / -0.05$]	0.120 $+0.008 / -0.002$ [3.2 $+0.2 / -0.05$]	0.024 $+0.008 / -0.004$ [0.6 $+0.20 / -0.1$]	0.035 ± 0.008 [0.9 ± 0.2]
SPJ3007 (4020)	0.402 $+0.006 / -0.002$ [10.2 $+0.15 / -0.05$]	0.200 $+0.006 / -0.002$ [5.1 $+0.15 / -0.05$]	0.024 $+0.008 / -0.004$ [0.6 $+0.20 / -0.1$]	0.035 ± 0.008 [0.9 ± 0.2]

Packaging:

Bulk or Blister tape to IEC 60286-3

Tape width 8mm / Reel Diameter 180 or 330mm
 Minimum quantity Bulk / 100 pieces per value
 Minimum quantity Tape & Reel / 250 pieces per value

Ordering Information

Part Number - Resistance - Tolerance - TCR - Packaging

Example: SPJ3002 10 kOhms 5% 50ppm Tape

(Note: if no TCR is specified, the highest value will be supplied)

Power Derating Curve

