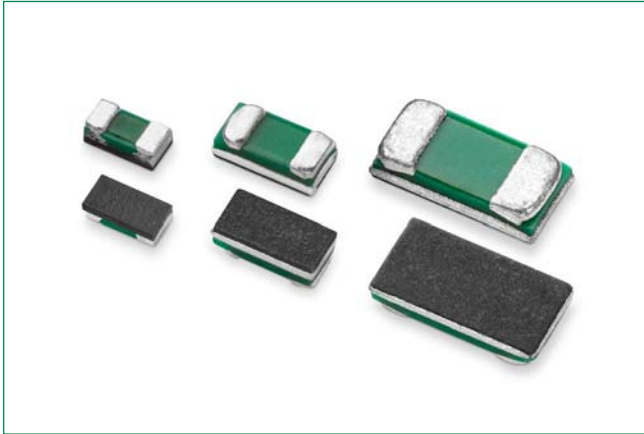


Surface Mount High Current Jumper

WJC Series

HF **RoHS** **Pb**


Description

Littelfuse WJC Series is a high-current metal foil jumper chip.

Features

- Maximum resistance of 1 mΩ
- Maximum current of 40 A
- Epoxy substrate

Benefits

- Small size
- High voltage

Application

- Power management
- Low ESL
- Server

Additional Information



Resources



Accessories



Samples

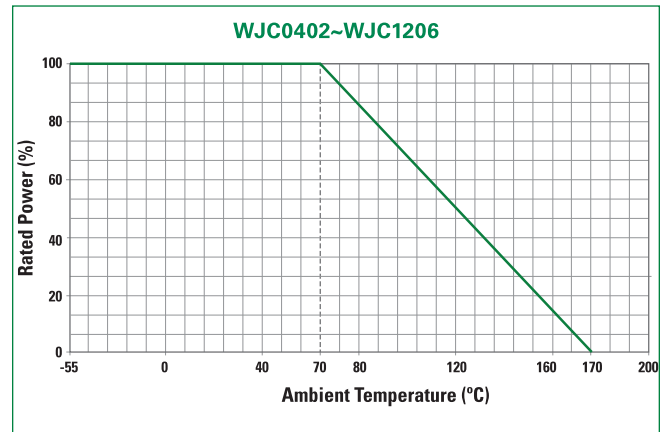
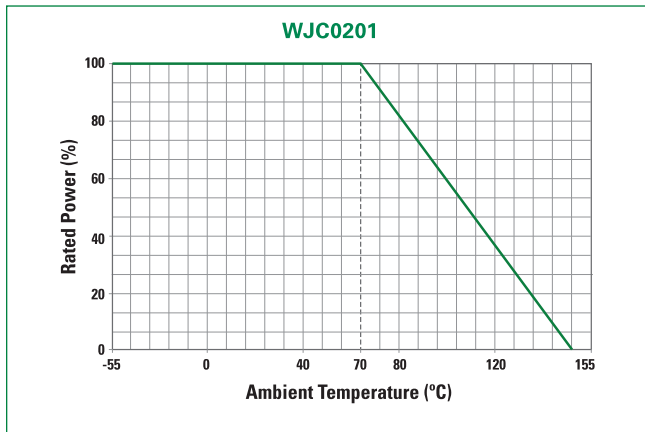
Electrical Specifications

Part Number	Resistance		Resistance Value Max (mΩ)	I _{max} (A)	Standard Package Quantity
	R _o (mΩ)	R _t (%)			
WJC0201LJUMPFKR	0201	603	1	8	10000
WJC0402LJUMPFKR	0402	1005	0.5	20	10000
WJC0603LJUMPFNR	0603	1608	0.2	26	5000
WJC0805LJUMPFNR	0805	2012	0.2	35	5000
WJC1206LJUMPFNR	1206	3216	0.2	40	5000

Surface Mount High Current Jumper

WJC Series

Temperature De-rating Curve



Storage / Environment Conditions

Products should be stored under the following environmental conditions.

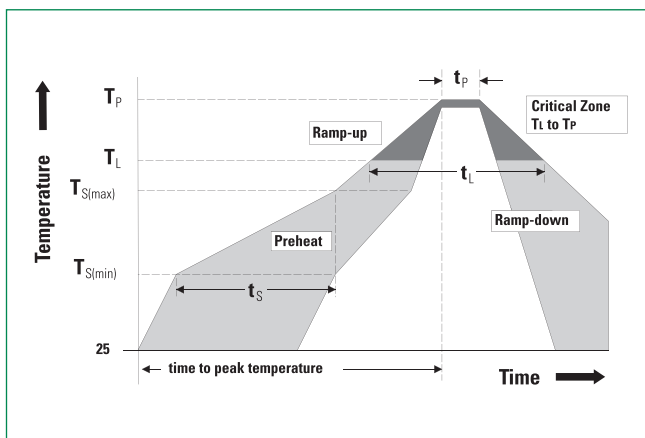
Temperature:	+5 to +35 °C
Humidity:	45 to 85% relative humidity
Moisture Sensitivity Level:	1, J-STD-020

Do not keep products in environments where they may be subject to particulate contamination or harmful gases such as sulfuric acid or hydrogen chloride as it may cause oxidization on electrodes, resulting poor solderability.

Products should be stored in a space that does not expose to high temperatures, vibration, or direct sunlight.

Products should be stored in the original airtight packaging until use.

Soldering Parameters—Wave Soldering



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ($T_{S(max)}$ to T_p)	3 °C / second max
Preheat	
Temperature Minimum ($T_{S(min)}$)	150 °C
Temperature Maximum ($T_{S(max)}$)	200 °C
Time ($T_{S(min)}$ to $T_{S(max)}$)	60–180 seconds
Time maintained above	
Temperature Minimum (T_L)	217 °C
Time (t_L)	60–150 seconds
Peak Temperature (T_p)	260 +0 °C
Time within 5 °C of Actual Peak Temperature (t_p)	20–40 seconds
Ramp-Down Rate	6 °C / second Maximum
Time 25 °C to Peak Temperature	8 minutes Maximum

Surface Mount High Current Jumper

WJC Series

Reliability Specifications

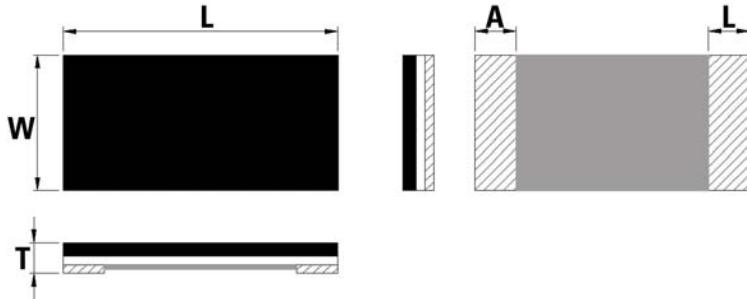
Test	Procedure	Specifications
Load Life IEC60115-1 4.25	Test Temperature: 70°C±2°C, t= 1000 hours with power cycling as follows: 90 min power ON/30 min power OFF	Part must meet initial specifications following testing
Moisture Load Life IEC60115-1 4.25	0201: T= 40 ±2°C; RH= 90%; t= 1000h 0402~1206: Vtest = Vmax; T= 60 ±2°C; RH= 95%; t = 90 mins. ON, 30 mins. OFF, t=1000h	
Thermal Shock IEC60115-1 4.19	Repeat 100 cycles as follows: -55°C (30 min.) / Room temp (3 min) / +150°C (30 min.) / Room temp (3 min)	
Resistance To Solder Heat IEC60115-1 4.18	Through Reflow T= 275 ±5°C, t = 20 ±1 seconds. Repeat for a total of 3 cycles	
Load Life - Endurance (High Temperature Exposure) IEC60115-1 4.25	0201: Test Temperature: 125°C ±2°C t= 1000 hours 0402~1206: Test Temperature: +150°C±2°C t= 1000 hours	
HAST (Highly Accelerated Stress Test- Autoclave)	0201: Test Temperature: 121°C ±2°C Test Pressure: 30 PSIA Test period: 48 hours	
Solderability IEC60115-1 4.17	Dipped into molten solder for 3 ±0.5 seconds at 245 ±5°C	New solder coverage of 95% minimum
Mechanical Shock	0201: Force: 50 ±5G. Test Duration: 11 ±1 milliseconds	
Substrate Bending IEC60115-1 4.33	0201: Span between fulcrums: 90mm, Bend Width: 2mm, Duration: 10 seconds	
Vibration	0201: Frequency: 10~2,000Hz Acceleration: 15 ±1.5G. Test Duration: 20 mins, 12 Cycles	Part must meet initial specifications following testing
Low Temperature Storage IEC60115-1 4.25	0402~1206: T= -55°C t= 1000h	
Terminal Strength	0201: Test force: 3.4N Duration: 60 ±1 seconds	

Surface Mount High Current Jumper

WJC Series

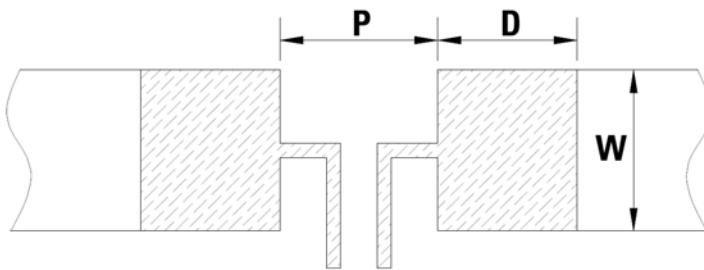
Dimensions

All dimensions in mm



Part Number	W	L	T	A
WJC0201	0.30±0.04	0.60±0.03	0.25±0.10	0.15±0.06
WJC0402	0.50±0.20	1.00±0.20	0.30±0.15	0.20±0.15
WJC0603	0.80±0.20	1.60±0.20	0.35±0.20	0.35±0.20
WJC0805	1.25±0.20	2.00±0.20	0.40±0.20	0.35±0.20
WJC1206	1.60±0.20	3.20±0.20	0.40±0.20	0.50±0.20

Recommended Land Pattern



Part Number	P	W	D	Loading
WJC0201	0.25 mm	0.33 mm	0.20 mm	0.064 W
WJC0402	0.40 mm	0.60 mm	0.60 mm	0.2 W
WJC0603	0.60 mm	0.92 mm	1.30 mm	0.135 W
WJC0805	0.80 mm	1.44 mm	1.40 mm	0.245 W
WJC1206	1.20 mm	1.84 mm	1.80 mm	0.32 W

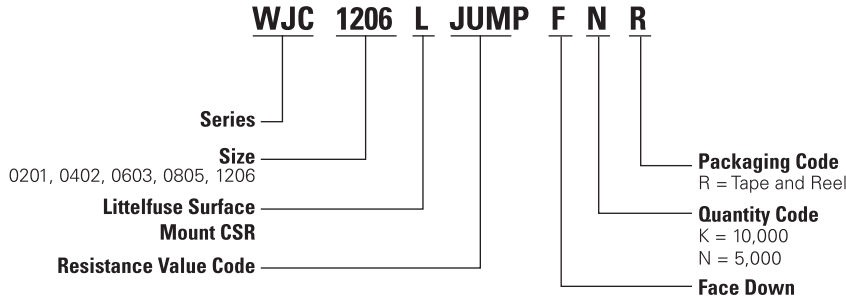
Packaging

Part Number	Halogen Free	Packaging Option	Quantity	Quantity & Packaging Codes
WJC0201	Yes	Tape and Reel	10000	KR
WJC0402	Yes	Tape and Reel	10000	KR
WJC0603	Yes	Tape and Reel	5000	NR
WJC0805	Yes	Tape and Reel	5000	NR
WJC1206	Yes	Tape and Reel	5000	NR

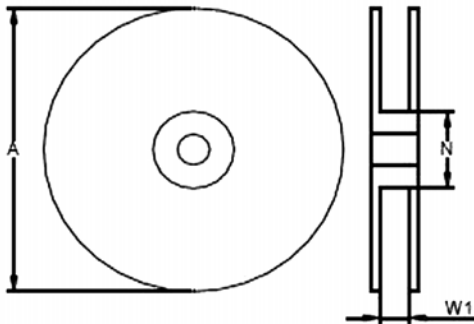
Surface Mount High Current Jumper

WJC Series

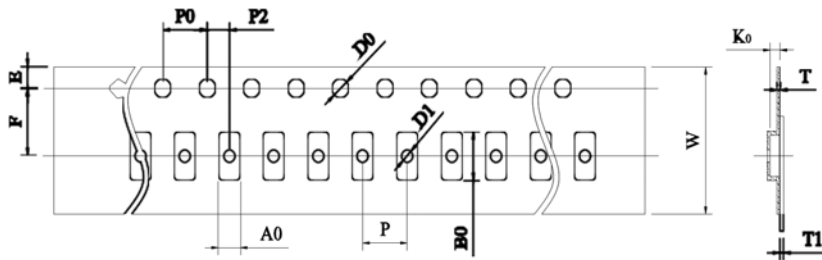
Part Numbering System



Tape and Reel Specifications



Part Number	A±5 (mm)	N±2 (mm)	W1±1 (mm)
WJC	178	60	9.0



Part Number	W	P0	P	P2	A0	B0	D0	F	E	T	T1	K0
WJC0201	8.00±0.20	4.00±0.10	2.00±0.10	2.00±0.10	0.38±0.10	0.68±0.10	1.50±0.10	3.50±0.10	1.75±0.10	0.45±0.05	Max. 0.1	0.30±0.05
WJC0402	8.00±0.30	4.00±0.10	2.00±0.10	2.00±0.10	0.65±0.10	1.10±0.10	1.50±0.10	3.50±0.10	1.75±0.10	0.42±0.05	/	/
WJC0603	8.00±0.30	4.00±0.10	4.00±0.10	2.00±0.10	0.98±0.10	1.85±0.10	1.50±0.10	3.50±0.10	1.75±0.10	0.60±0.05	/	/
WJC0805	8.00±0.30	4.00±0.10	4.00±0.10	2.00±0.10	1.55±0.10	2.30±0.10	1.50±0.10	3.50±0.10	1.75±0.10	0.60±0.10	/	/
WJC1206	8.00±0.30	4.00±0.10	4.00±0.10	2.00±0.10	2.05±0.20	3.65±0.20	1.50±0.10	3.50±0.10	1.75±0.10	0.60±0.10	/	/

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