

# High Current Jumper Chip

LRZ Series

- High current zero-Ohm link
- Thick film copper technology
- Current rating to 35A
- Typical resistance 1.5mΩ
- Inductance below 0.2nH

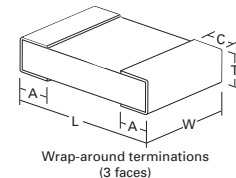


## Electrical Data

Size		0805	1206	2010	2512	Notes
Current rating @ 70 °C	Amps	15	20	30	35	DC or AC rms
2 second overload current @ 25°C	Amps	30	40	60	70	
Resistance	Ohms	0.003 max.				0.0015 typ.
Ambient temperature range	°C	-55 to +150				
Dielectric withstand voltage	Volts	200				
Temperature rise at rated current	°C	30	40	80	90	
Pad & trace area for rated current	mm <sup>2</sup>	40	50	100	300	See Application Notes

## Physical Data

Dimensions (mm) & Weight (g)						
	L	W	T	A	C	Wt
0805	2.0 ± 0.3	1.25 ± 0.2	0.61 ± 0.1	0.3 ± 0.15	0.3 ± 0.1	0.009
1206	3.20 ± 0.31	1.63 ± 0.2	0.61 ± 0.1	0.48 ± 0.25	0.48 ± 0.25	0.020
2010	5.23 ± 0.38	2.64 ± 0.25	0.74 ± 0.1	0.48 ± 0.25	0.48 ± 0.25	0.036
2512	6.5 ± 0.38	3.25 ± 0.25	0.74 ± 0.1	0.48 ± 0.25	0.48 ± 0.25	0.055



### Construction

A thick film copper conductive element and organic protection are screen printed on a 96% alumina substrate.

withstand immersion in solder at 260°C for 30 seconds and are suitable for reflow or wave soldering processes.

### Terminations

The wrap-around copper terminations have an electroplated nickel barrier and solderable coating, which ensures excellent 'leach' resistance properties and solderability. Chips can

### Marking

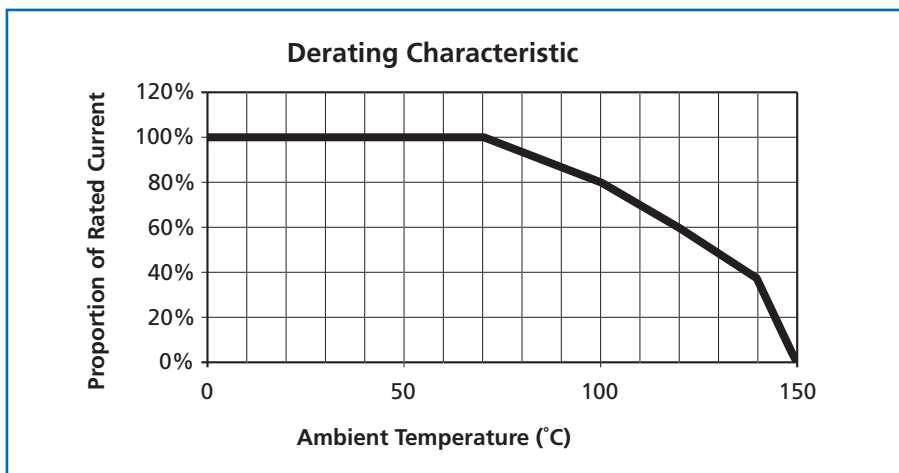
The body protection is resistant to all normal cleaning solvents suitable for printed circuits. Chips are marked R000 except for 0805 size which are not marked.

### General Note

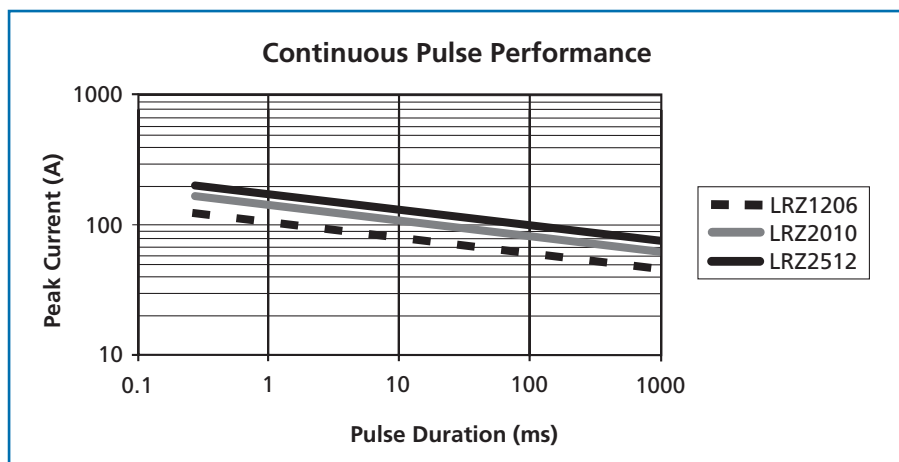
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## Temperature Derating



## Pulse Performance



## Application Notes

Conventional thick film “zero-Ohm” jumper chips typically have up to 50mΩ resistance values and 1 to 2A current ratings. LRZ jumper chips offer a solution for currents over an order of magnitude greater by combining lower resistance values with better thermal conductivity.

Care should be taken when designing the associated printed circuit board tracks to ensure that they can carry the required current without excessive heating, for example by using multiple layers thermally linked with many vias. Any temperature rise caused by power dissipated in the PCB tracks themselves should be allowed for when calculating the ambient temperature in order to determine whether power

de-rating should be applied. The minimum recommended pad and trace areas close to the resistor stated under Electrical Data should be provided at each terminal. For multi-layer PCB's, this minimum area requirement should be met by surface layers rather than buried layers. The actual solder pad area follows the normal design rules for chip resistors.

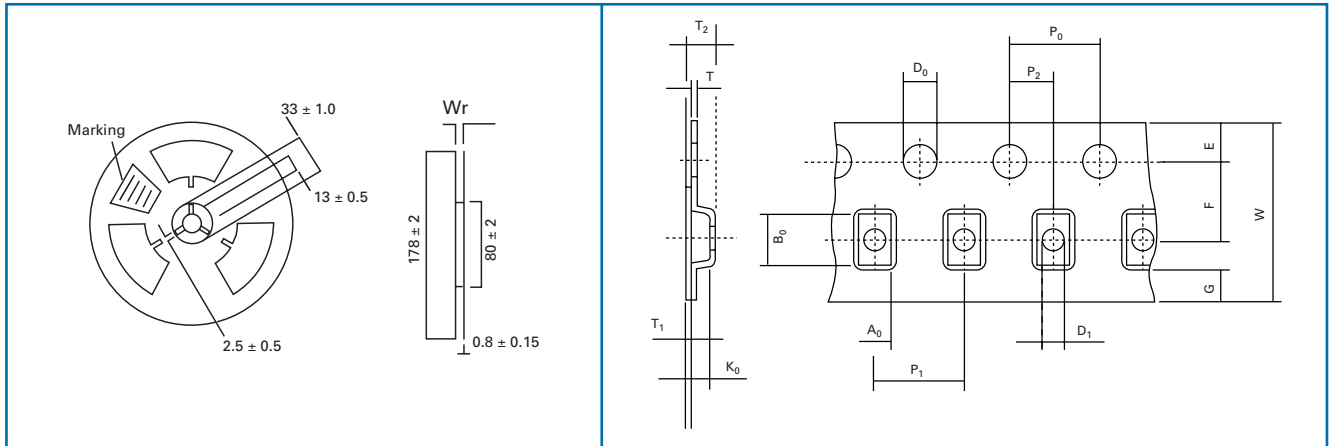
LRZ jumper chips themselves can operate at a maximum temperature of 150°C (see performance above). For conventionally soldered jumper chips, the joint temperature should not exceed 110°C. This condition is met when the stated current levels at 70°C are used.

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## Packaging

LRZ jumper chips are supplied taped and reeled as per IEC 286-3.



Tape and Reel Dimensions (mm)																Qty. per reel
Wr	W	P1	P0	P2	D0	D1	E	F	A0	B0	K0	T	T1	T2		
±0.5	±0.3	±0.1	±0.1	±0.05	±0.1	±0.2	±0.1	±0.05	±0.1	±0.1	±0.1	±0.05	Nom.	±0.15		
<b>0805</b>	9	8	4	4	2	1.5	1	1.75	3.5	1.45	2.3	1.0	0.2	0.05	1.3	
<b>1206</b>	9	8	4	4	2	1.5	1	1.75	3.5	1.95	3.55	1.0	0.2	0.05	1.3	3000
<b>2010</b>	13	12	8	4	2	1.5	1.5	1.75	5.5	2.79	5.89	0.91	0.28	0.06	1.21	3000
<b>2512</b>	13	12	8	4	2	1.5	1.5	1.75	5.5	3.61	6.96	1.17	0.28	0.06	1.45	1800

## Ordering Procedure

Specify type reference etc. as shown in this example of LRZ1206:

