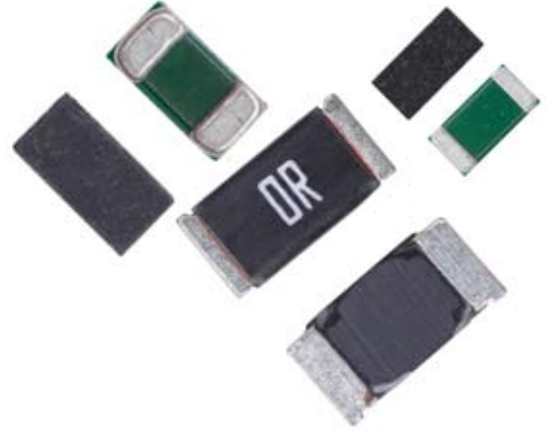


# JR Series

## High Power Jumper Chip



The Ohmite JR series high current jumpers are rated up to 100 amps and provides a max resistance range of 0.5m to 0.2m ohms. This minimizes effects on the designed circuit. Five industry sizes are available. The JR series also provides great insulation resistance over 100M ohms.

### SERIES SPECIFICATIONS

Series	Max. Res. (mΩ)	Max. Current (A)	Loading**
JR0402X20E	0.5	20	0.2W
JR0603X26E	0.2	26	0.135W
JR0805X35E	0.2	35	0.245W
JR1206X40E	0.2	40	0.32W
JR2512X100E	≤0.2	100	2W

\*\*based on specific pad layout specific current

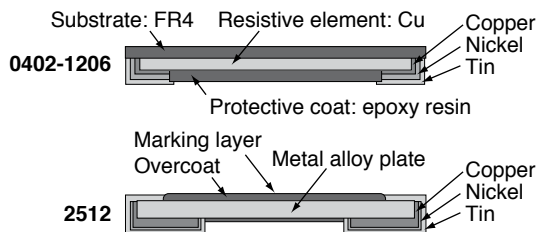
### FEATURES

- Five standard sizes - 0402 through 2512
- Max resistance below 0.2m ohms
- Max current handling of 100 amps
- Max derating temperature of 170°C (2512)

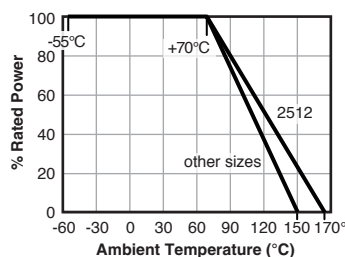
### CHARACTERISTICS

Insulation res.	100MΩ
Rated amb. temp.	70°C
Oper. temp. range	-55°C~150°C; 2512: -55 +170°C
Jumper material	Cu
Storage	Temperature : 25±5°C Humidity : 60±20% Airtight in temp. 10°C~40°C, relative humidity 75% can store 2 years. Without dew in temp. 10°C~60°C, relative humidity 95% max. value for 30 days.

### Construction



### Derating



### PERFORMANCE

#### 0402, 0603, 0805, 1206

Test Procedure	Requirement
<b>High Temp. Exposure</b> T = +150 ±2°C; t = 1000h; IEC60115-1 4.25	<Rmax
<b>Low Temp. Storage</b> T = -55±2°C; t = 1000h; IEC60115-1 4.25	<Rmax
<b>Moisture Load Life</b> (60°C, 95%RH) Vtest = Vmax; T=60±2°C; RH=95%; t= 90min ON, 30min OFF, 1000h; IEC60115-1 4.25	<Rmax
<b>Thermal Shock</b> -55°C 30min.; R.T. 3min.; +150°C 30min.; R.T. 3min); 100Cycles; IEC60115-1 4.19	<Rmax
<b>Load Life at 70°C</b> Vtest = Vmax; T=70 ±2°C; t= 90min ON, 30min OFF, 1000h; IEC60115-1 4.25	<Rmax
<b>Solderability</b> Dip into solder at T = 245±5°C, t = 3 ±0.5 sec.; IEC60115-1 4.17	95% coverage
<b>Resistance to Solder Heat</b> Through Reflow; T= 275 ±5°C, t =20 ±1sec.; IEC60115-1 4.18	<Rmax

#### 2512

Test Procedure	Requirement
<b>Short time over-load</b> 4x rated power, 5 sec.; JIS C 5201-1 4.13	≤0.2mΩ
<b>Temp. cycling</b> -55°C to 150°C, 1000 cy., 15 min. at each extreme; JIS C 5201-1 4.23.2	≤0.2mΩ
<b>High Temp. Exposure</b> 1000 hrs. at 170°C	≤0.2mΩ
<b>Bias humidity</b> 1000 hrs. at 85°C/85%RH, 10% bias 1.5 hrs. on, 0.5 hrs. off; JIS C 5201-1 4.24	≤0.2mΩ
<b>Load at rated power</b> 1000 hrs. at 70°C, 1.5 hrs. on, 0.5 hrs. off; JIS C 5201-1 4.25	≤0.2mΩ
<b>Solderability</b> 245 ±5°C, 2 ±0.5 sec.; JIS C 5201-1 4.17	95% coverage

(continued)

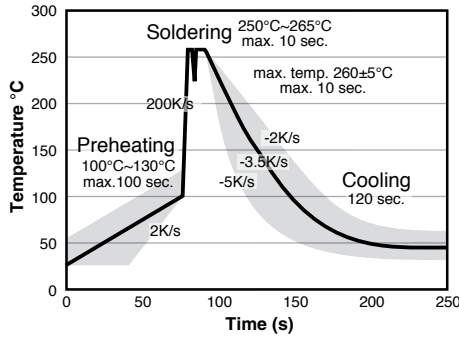
# JR Series

## High Power Jumper Chip

### SOLDERING

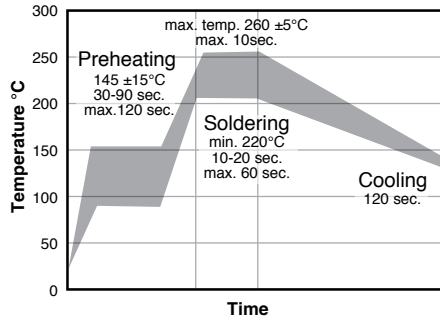
#### Wave Soldering

Preheating : 100~130°C, max.100 sec.  
Soldering: 250~265°C max. 10 sec.  
Max. temp.: 260 ±5°C, max. 10 sec.



#### Reflow Soldering

Preheating: 145 ±15°C, max.120 sec.  
Soldering: min. 220°C, max. 60 sec.  
Max. temp.: 260±5°C, max. 10sec.

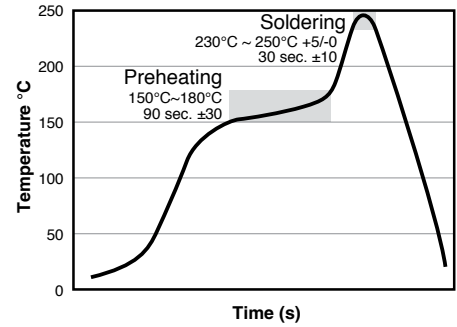


Rework temperature: (hot air equipment) 350°C, 3~5 seconds

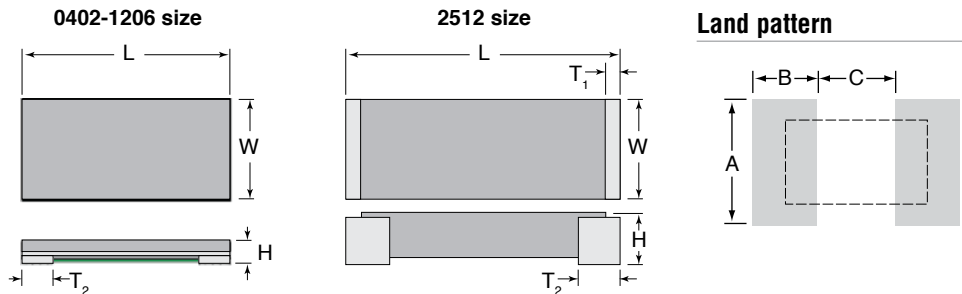
Recommended reflow methods: IR, vapor phase oven, hot air oven. If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

#### Reflow Soldering: 2512 Size

Preheating: 150°~180°C, max.120 sec.  
Soldering: min. 230°C, max. 40 sec.  
Max. temp.: 250±5°C, max. 10sec.



### DIMENSIONS



Type	W	L	H	T1	T2	A	B	C
JR0402X20E	0.50 ±.20	1.00 ±.20	0.35 ±.20	-	0.20 ±.15	0.60	0.60	0.40
JR0603X26E	0.80 ±.20	1.60 ±.20	0.35 ±.20	-	0.35 ±.20	0.92	1.30	0.60
JR0805X35E	1.25 ±.20	2.00 ±.20	0.35 ±.20	-	0.35 ±.20	1.44	1.40	0.80
JR1206X40E	1.60 ±.20	3.20 ±.20	0.50 ±.20	-	0.50 ±.20	1.84	1.80	1.20
JR2512X100E	3.05 ±.25	6.35 ±.25	0.67 ±.25	0 ~ 0.20	1.10 ±.25	3.68	2.11	3.18

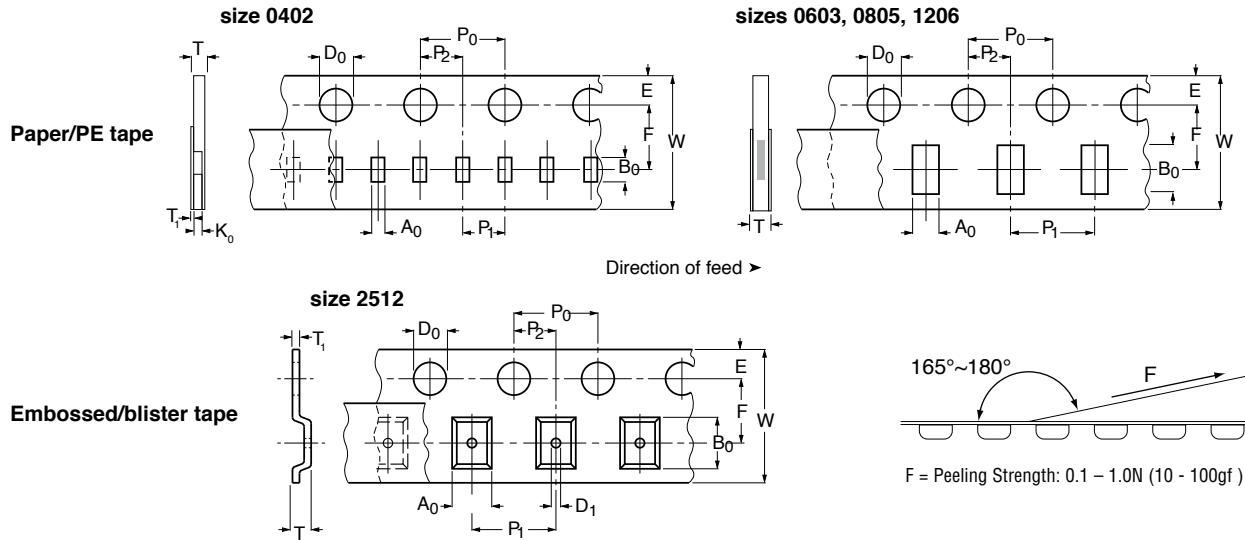
(continued)

# JR Series

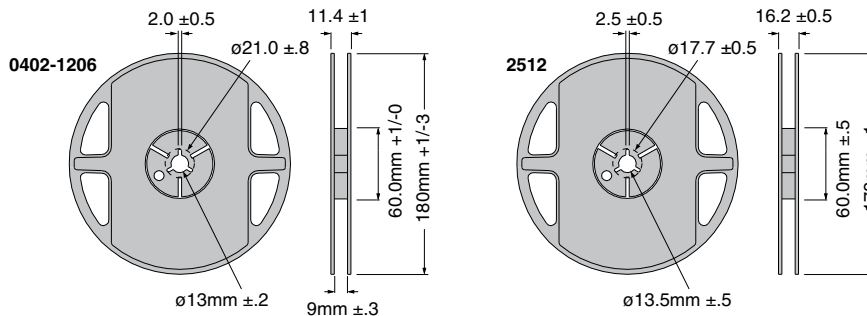
## High Power Jumper Chip

### TAPE AND REEL

(mm)



Size	W	P0	P	P2	A0	B0	D0	D1	F	E	T	T1	K0
0402	8.00 ±.30	4.00 ±.10	2.00 ±.10	2.00 ±.10	0.75 ±.20	1.25 ±.20	1.50 ±.10	-	3.50 ±.10	1.75 ±.10	0.50 ±.05	Max. 0.1	0.40 ±.05
0603	8.00 ±.30	4.00 ±.10	4.00 ±.10	2.00 ±.10	1.18 ±.20	1.98 ±.20	1.50 ±.10	-	3.50 ±.10	1.75 ±.10	0.58 ±.10	-	-
0805	8.00 ±.30	4.00 ±.10	4.00 ±.10	2.00 ±.10	1.55 ±.20	2.30 ±.20	1.50 ±.10	-	3.50 ±.10	1.75 ±.10	0.58 ±.20	-	-
1206	8.00 ±.30	4.00 ±.10	4.00 ±.10	2.00 ±.10	2.05 ±.20	3.65 ±.20	1.50 ±.10	-	3.50 ±.10	1.75 ±.10	0.75 ±.20	-	-
2512	12.0 ±.30	4.00 ±.10	4.00 ±.10	2.00 ±.10	3.50 ±.10	6.75 ±.10	1.50 +1/-0	1.55 ±.10	5.5 ±.10	17.5 ±.10	0.90 ±.10	0.20 ±.05	-



Size	qty/reel	weight (g)
0402	10,000	100 ±.30
0603	5,000	140 ±.30
0805	5,000	160 ±.30
1206	5,000	180 ±.30
2512	4,000	-

### ORDERING INFORMATION

**J R 0 6 0 3 X 2 6 E**

Series    Size    Modifier    Current Rating    RoHS Compliant

Part No.	Max. Res. (mΩ)	Max. Current (A)
JR0402X20E	0.5	20
JR0603X26E	0.2	26
JR0805X35E	0.2	35
JR1206X40E	0.2	40
JR2512X100E	≤0.2	100