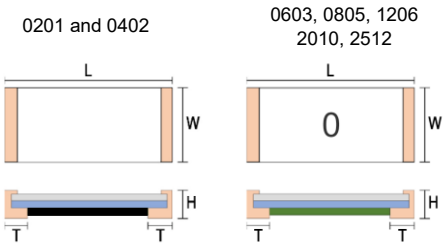
Features:

- High current handling up to 70.7 amps
- Low resistance/inductance
- Inner terminations engineered to deter sulfur contamination
- RoHS compliant, REACH compliant, lead free, and halogen free
- AEC-Q200 qualified

Electrical Specifications

Type/Code	Power Rating (W) @ 70°C	Max Current Rating (A)	Max Overload Current (A)	Operating Temperature Range	Maximum Resistance Value (Ω)
CSFA0201	0.1	5.8	14.5	-55 to +155°C	≤ 0.003
CSFA0402	0.125	6.5	16.2	-55 to +155°C	≤ 0.003
CSFA0603	0.25	22.4	56.0	-55 to +155°C	≤ 0.0005
CSFA0805	0.5	31.6	79.0	-55 to +155°C	≤ 0.0005
CSFA1206	0.75	38.7	96.7	-55 to +155°C	≤ 0.0005
CSFA2010	1	70.7	112.0	-55 to +155°C	≤ 0.0002
CSFA2512	2	63.2	158.0	-55 to +155°C	≤ 0.0005

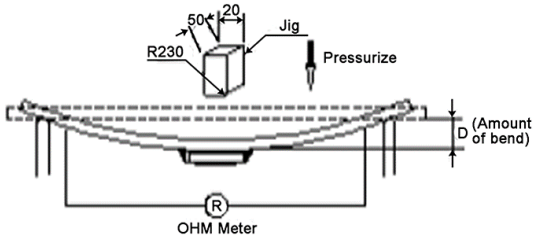
Mechanical Specifications



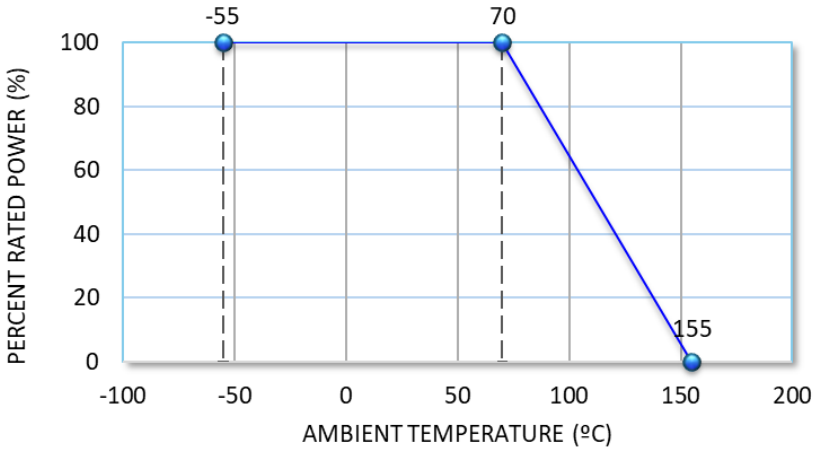
Type/Code	L	W	H	T	Unit
CSFA0201	0.024 ± 0.001 0.60 ± 0.03	0.012 ± 0.001 0.30 ± 0.03	0.010 ± 0.002 0.26 ± 0.05	0.006 ± 0.002 0.15 ± 0.05	inches mm
CSFA0402	0.039 ± 0.004 1.00 ± 0.10	0.020 ± 0.002 0.50 ± 0.05	0.016 ± 0.002 0.40 ± 0.05	0.012 ± 0.004 0.30 ± 0.10	inches mm
CSFA0603	0.061 ± 0.004 1.55 ± 0.10	0.031 ± 0.004 0.80 ± 0.10	0.022 ± 0.004 0.55 ± 0.10	0.014 ± 0.008 0.35 ± 0.20	inches mm
CSFA0805	0.083 ± 0.006 2.10 ± 0.15	0.053 ± 0.006 1.35 ± 0.15	0.028 ± 0.004 0.70 ± 0.10	0.022 ± 0.008 0.55 ± 0.20	inches mm
CSFA1206	0.122 ± 0.008 3.10 ± 0.20	0.061 ± 0.004 1.55 ± 0.10	0.028 ± 0.004 0.70 ± 0.10	0.031 ± 0.008 0.80 ± 0.20	inches mm
CSFA2010	0.200 ± 0.010 5.08 ± 0.25	0.100 ± 0.010 2.54 ± 0.25	0.026 ± 0.008 0.65 ± 0.20	0.083 ± 0.012 2.10 ± 0.30	inches mm
CSFA2512	0.252 ± 0.012 6.40 ± 0.30	0.126 ± 0.012 3.20 ± 0.30	0.026 ± 0.008 0.65 ± 0.20	0.037 ± 0.012 0.95 ± 0.30	inches mm

Parts are packaged resistor side down (white side up) to reduce the side termination effects on the effective resistance.
0201 and 0402 sizes are unmarked.

This specification may be changed at any time without prior notice.
Please confirm technical specifications before use.

Performance Characteristics (per JIS-C-5201)		
Test	Test Condition	Test Specification
Short Time Overload	2.5 times rated current for 5 seconds, for all sizes except 2010. For 2010 size, 2.5 times rated power for 5 seconds	≤ Rmax
High Temperature Exposure	1000 hours at 155 ± 2°C	≤ Rmax
Low Temperature Storage	1000 hours at -55 ± 2°C	≤ Rmax
Soldering Heat	260 ± 5°C for 10 ± 1 seconds	≤ Rmax
Moisture Load Life	T = 40 ± 2°C, RH = 90~95% Load with Rated Current 1.5 hours "ON", 0.5 hour "OFF", 1000 hours	≤ Rmax
Temperature Cycling	-55 to +155°C, 100 cycles	≤ Rmax
Load Life	T = 70 ± 2°C, Load with Rated Current 1.5 hours "ON", 0.5 hour "OFF", 1000 hours	≤ Rmax
Solderability	245 ± 5°C for 3 ± 0.5 seconds	Covered area > 95%
Mechanical Shock	a = 50G, t = 11 ms, 5 times shock	≤ Rmax
Substrate Bending	Span between fulcrums: 90 mm Bend width: 2 mm 	≤ Rmax
Sulfur Test (FOS)	Per ANSI / EIA-977 105 ± 2°C, no power rating for 1000 hours	≤ Rmax + 0.1mΩ

Power Derating Curve:



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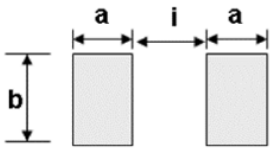
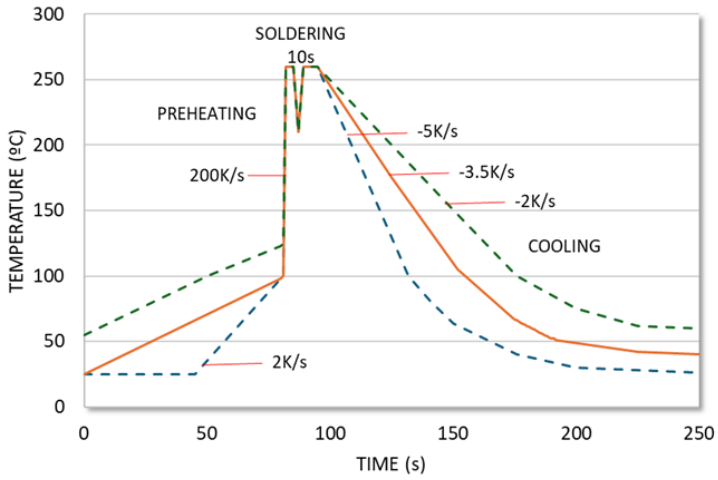
Recommended Solder Pad



Type/Code	a	b	i	Unit
CSFA0201	0.012 0.30	0.014 0.35	0.010 0.25	inches mm
CSFA0402	0.020 0.50	0.024 0.60	0.016 0.40	inches mm
CSFA0603	0.051 1.30	0.036 0.92	0.024 0.60	inches mm
CSFA0805	0.055 1.40	0.057 1.44	0.031 0.80	inches mm
CSFA1206	0.071 1.80	0.072 1.84	0.047 1.20	inches mm
CSFA2010	0.144 3.65	0.113 2.88	0.028 0.70	inches mm
CSFA2512	0.083 2.10	0.134 3.40	0.150 3.80	inches mm

Wave Soldering



Preheating	100 ~ 130°C, max. 100 seconds
Soldering	250 ~ 265°C, max. 10 seconds
Maximum Temperature	260 ± 5°C, max. 10 seconds

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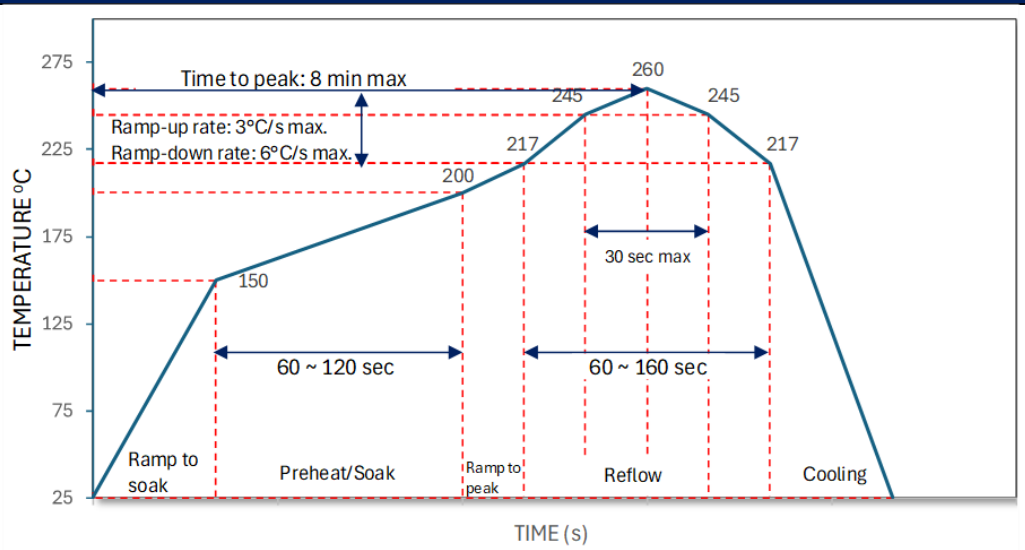
Please confirm technical specifications before use.

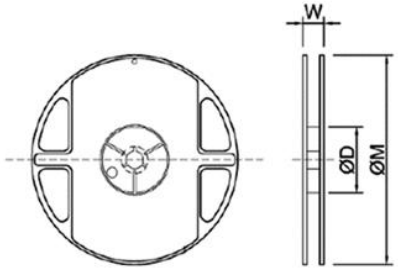
Recommended Resistor Reflow Profile



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.

Reel Specifications



Type/Code	ØD	W	ØM	Unit
0201 - 1206	2.362 ± 0.079 60.00 ± 2.00	0.354 ± 0.039 9.00 ± 1.00	7.008 ± 0.197 178.00 ± 5.00	inches mm
2010 and 2512	2.362 ± 0.079 60.00 ± 2.00	0.512 ± 0.039 13.00 ± 1.00	7.008 ± 0.197 178.00 ± 5.00	inches mm

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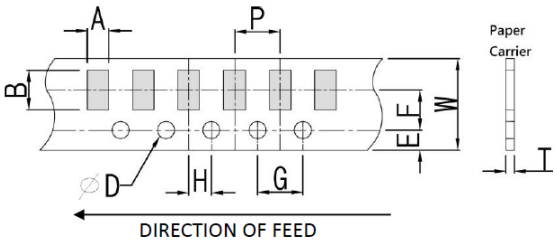
Please confirm technical specifications before use.

Taping Specifications - Paper Tape



Type/Code	A	B	E	F	W	Unit
CSFA0201	0.018 ± 0.004 0.45 ± 0.10	0.030 ± 0.004 0.75 ± 0.10	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.004 3.50 ± 0.10	0.315 ± 0.012 8.00 ± 0.30	inches mm
CSFA0402	0.028 ± 0.002 0.70 ± 0.05	0.047 ± 0.002 1.20 ± 0.05	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.004 3.50 ± 0.10	0.315 ± 0.012 8.00 ± 0.30	inches mm
CSFA0603	0.046 ± 0.008 1.18 ± 0.20	0.078 ± 0.008 1.98 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.004 3.50 ± 0.10	0.315 ± 0.012 8.00 ± 0.30	inches mm
CSFA0805	0.066 ± 0.008 1.68 ± 0.20	0.094 ± 0.008 2.38 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.004 3.50 ± 0.10	0.315 ± 0.012 8.00 ± 0.30	inches mm
CSFA1206	0.081 ± 0.008 2.05 ± 0.20	0.144 ± 0.008 3.65 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.004 3.50 ± 0.10	0.315 ± 0.012 8.00 ± 0.30	inches mm
Type/Code	T	P	H	Ø D	G	Unit
CSFA0201	0.014 ± 0.004 0.35 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
CSFA0402	0.018 ± 0.004 0.45 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
CSFA0603	0.030 ± 0.008 0.75 ± 0.20	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
CSFA0805	0.034 ± 0.008 0.87 ± 0.20	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
CSFA1206	0.034 ± 0.008 0.87 ± 0.20	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm

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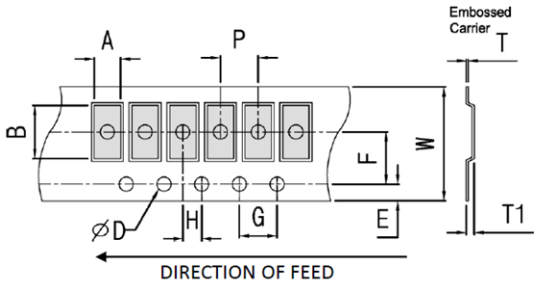
Taping Specifications - Plastic Tape

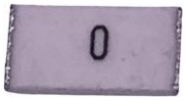


Type/Code	W	P	E	F	ØD	G	Unit
CSFA2010	0.472 ± 0.012 12.00 ± 0.30	0.157 ± 0.004 4.00 ± 0.10	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.004 5.50 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
CSFA2512	0.472 ± 0.012 12.00 ± 0.30	0.157 ± 0.004 4.00 ± 0.10	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.004 5.50 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm

Type/Code	H	A	B	T1	T	Unit
CSFA2010	0.079 ± 0.004 2.00 ± 0.10	0.112 ± 0.008 2.85 ± 0.20	0.215 ± 0.008 5.45 ± 0.20	0.031 ± 0.008 0.80 ± 0.20	0.010 ± 0.004 0.25 ± 0.10	inches mm
CSFA2512	0.079 ± 0.004 2.00 ± 0.10	0.134 ± 0.008 3.40 ± 0.20	0.266 ± 0.008 6.75 ± 0.20	0.031 ± 0.008 0.80 ± 0.20	0.010 ± 0.004 0.25 ± 0.10	inches mm

Part Marking Specifications

1. The nominal resistance is marked with the use of **one character marking: "0"**



Zero ohm

2. 0201 and 0402 sizes are **unmarked**.


no marking

RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

RoHS Compliance Status

Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
CSFA	Automotive Grade High Current Jumper	SMD	YES	100% Matte Sn over Ni	Always	Always

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Please confirm technical specifications before use.

"Conflict Metals" Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order

C	S	F	A	2	0	1	0	Z	T	0	R	0	0

Product Series

CSFA

Size

Size/Code	Power (W)	Max. Rating Current (A)
0201	0.1	5.8
0402	0.125	6.5
0603	0.25	22.4
0805	0.5	31.6
1206	0.75	38.7
2010	1	70.7
2512	2	63.2

Tolerance

Code	Tol	Size	Value (Ω)
Z	Zero Ohm	0201	0.003 Max
		0402	
		0603	0.0005 Max
		0805	
		1206	
		2010	0.0002 Max
		2512	0.0005 Max

Packaging

Code	Description	Size	Quantity
T	7" Reel Paper Tape	0201, 0402	10000
		0603, 0805, 1206	5000
	7" Reel Plastic Tape	2010, 2512	4000

Resistance Value

Four characters with the multiplier used as the decimal holder.
0 ohm = 0R00

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