Stackpole Electronics, Inc.
Resistive Product Solutions

PRODUCT CHANGE NOTICE

PCN 2021-04

CSRF2512 – Foil on Ceramic Current Sensing Chip Resistor

July 26, 2021

Please be advised that Stackpole Electronics, Inc. has made the following changes to the specifications of the CSRF2512 Foil on Ceramic Current Sensing Chip Resistor:

PRODUCT: CSRF2512

CHANGES: The following points specify changes to the electrical specifications of this product.

1. Electrical specification - TCR changed as shown below:

Electrical Specifications - CSRF			
Type/Code	Power Rating (W)	TCR (ppm/°C)	Ohmic Range (Ω) and Tolerance 1% and 5%
CSRF2512 (2)	2	~~± 100~~	~~0.003 - 0.01~~
		± 100	0.002 - 0.009
		~~± 50~~	~~0.011 - 0.6~~
		± 50	0.01 - 0.56

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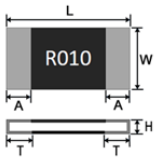
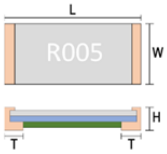
2. Mechanical Specification: Dimensional changes

Mechanical Specifications – CSRF1206



Type/Code	L Body Length	W Body Width	H Body Height	A Top Termination	T Bottom Termination	Unit
CSRF1206	0.122 ± 0.008 3.10 ± 0.20	0.061 ± 0.008 1.55 ± 0.20	0.031 ± 0.006 0.80 ± 0.15	0.020 ± 0.008 0.50 ± 0.20	0.022 ± 0.008 0.55 ± 0.20	inches mm
~~CSRF2512~~	~~0.252 ± 0.012~~ ~~6.40 ± 0.30~~	~~0.126 ± 0.012~~ ~~3.20 ± 0.30~~	~~0.030 ± 0.012~~ ~~0.75 ± 0.30~~	~~0.035 ± 0.010~~ ~~0.90 ± 0.25~~	~~0.055 ± 0.022~~ ~~1.40 ± 0.55~~	~~inches~~ ~~mm~~

Mechanical Specifications – CSRF2512



Type/Code	L Body Length	W Body Width	~~t~~ H Body Height	~~T~~ ~~Top Termination~~	~~B~~ T Bottom Termination	Unit
CSRF2512	0.252 ± 0.012 6.40 ± 0.30	0.126 ± 0.012 3.20 ± 0.30	0.030 ± 0.012 0.75 ± 0.30	~~0.035 ± 0.010~~ ~~0.90 ± 0.25~~	0.055 ± 0.022 1.40 ± 0.55	inches mm

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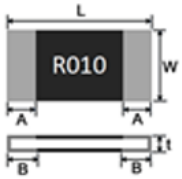
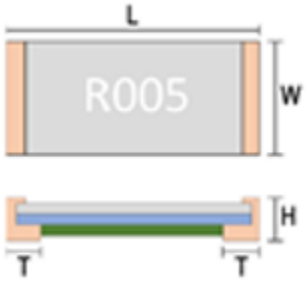
Part Picture Updated
From:



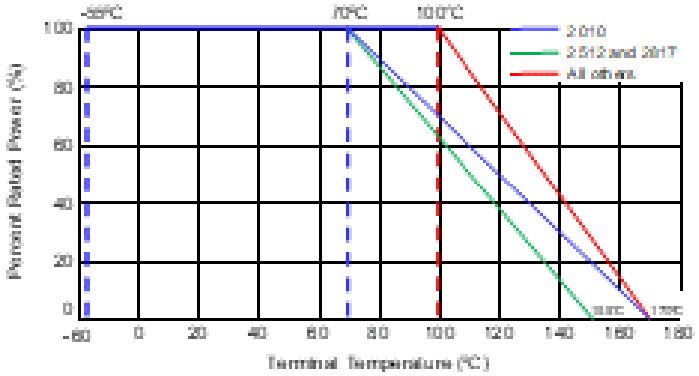
To:



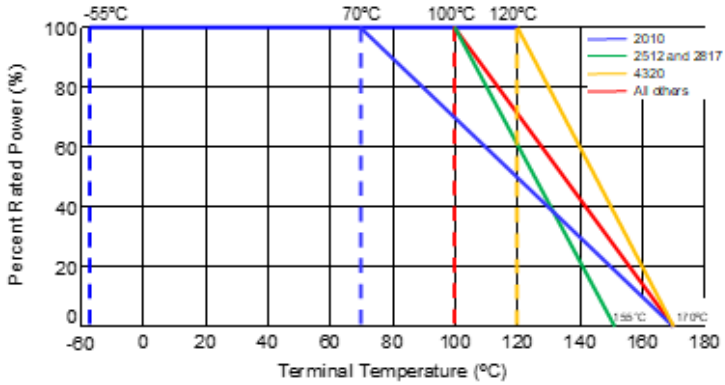
Power Derating Curve

Size 2010: 100% power at 70 ºC derating to zero at 170 ºC
Size 2512 and 2817: 100% power at 100 ºC derating to zero at 155 ºC
Size 4320: 100% power at 120 ºC derating to zero at 170 ºC
All others: 100% power at 100 ºC derating to zero at 170 ºC

From:



To:



3. Taping Specifications - Embossed Plastic Tape

Type/Code	A	B	E	F	W	Unit
CSRF2010	0.110 ± 0.006 2.80 ± 0.15	0.217 ± 0.006 5.50 ± 0.15	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.002 5.50 ± 0.05	0.472 ± 0.012 12.00 ± 0.30	Inches mm
~~CSRF2512~~	~~0.138 ± 0.004~~ ~~3.50 ± 0.10~~	~~0.268 ± 0.004~~ ~~6.80 ± 0.10~~	~~0.069 ± 0.004~~ ~~1.75 ± 0.10~~	~~0.217 ± 0.002~~ ~~5.50 ± 0.05~~	~~0.472 ± 0.008~~ ~~12.00 ± 0.20~~	~~Inches~~ ~~mm~~
CSRF2512	0.134 ± 0.008 3.40 ± 0.20	0.266 ± 0.008 6.75 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.004 5.50 ± 0.10	0.472 ± 0.012 12.00 ± 0.30	Inches mm
Type/Code	P0	P1	P2	D0	T	Unit
CSRF2010	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.033 ± 0.008 0.84 ± 0.20	Inches mm
~~CSRF2512~~	~~0.157 ± 0.002~~ ~~4.00 ± 0.05~~	~~0.157 ± 0.004~~ ~~4.00 ± 0.10~~	~~0.079 ± 0.002~~ ~~2.00 ± 0.05~~	~~0.059 ± 0.004~~ ~~1.50 ± 0.10~~	~~0.039 ± 0.008~~ ~~1.00 ± 0.20~~	~~Inches~~ ~~mm~~
CSRF2512	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.004 2.00 ± 0.10	0.059 ± 0.004 1.50 ± 0.10	0.039 ± 0.008 1.00 ± 0.20	Inches mm

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4. Recommended Pad Layouts – CSRF

~~CSRF2512~~	~~0.150~~ ~~3.80~~	~~0.083~~ ~~2.10~~	~~0.134~~ ~~3.40~~	~~inches~~ ~~mm~~
CSRF2512 0.002 Ω - 0.003 Ω	0.063 1.60	0.152 3.85	0.141 3.57	inches mm
CSRF2512 0.004 Ω - 0.56 Ω	0.122 3.10	0.122 3.10	0.141 3.57	inches mm

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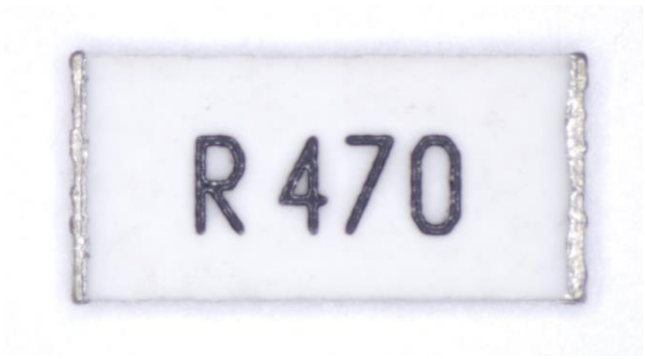
5. Performance Characteristics: Addition of 2512

Performance Characteristics				
Test	Test Method	Test Specification	Typical	Test Condition
Short Time Overload(*)	JIS-C-5202-5.5	± 1% + 0.5 mΩ	≤ 0.3%	Sizes 0805-HP, 0508, 2512 and 2817: 2.5 X rated power for 5 seconds Size 4320: 3 X rated power for 5 seconds All other sizes: 5 X rated power for 5 seconds

From: N/A
To: Highlighted in yellow

6. Appearance- May be either:

or



Reason for changes: Ceramic substrate raw material change.

Effective Date: Effective Date: January 1, 2022

For information please contact:

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