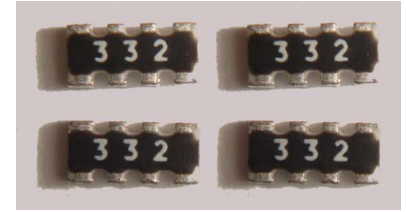


Features:

- Thick film resistor element
- Multiple circuit types available
- Ideal SMD substitute for leaded networks
- RoHS compliant and halogen-free
- Auto-placement capability
- Square corner construction standard
- Zero ohm jumper available
- RAVF 324D is standard with scalloped corner
- Styles 102D, 104D and 164D are qualified to AEC-Q200



Electrical Specifications								
Type/Code, # of Elements, Circuit Type	Power Rating (per element) @ 70°C	Power Rating (Entire Array) @ 70°C	Maximum Working Voltage ⁽¹⁾	Maximum Overload Voltage	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance		
						1%	2%	5%
RAVF052D	0.031W	0.063W	12.5V	25V	±500 ppm/°C	-	3 - 9.1	
					±300 ppm/°C	-	10 - 910	
					±200 ppm/°C	-	1K - 1M	
RAVF102D	0.063W	0.125W	25V	50V	±300 ppm/°C	-	1 - 9.11	
					±200 ppm/°C	10 - 1M		
RAVF104D	0.063W	0.250W	25V	50V	±300 ppm/°C	-	1 - 9.11	
					±200 ppm/°C	10 - 1M		
RAVF162D	0.063W	0.125W	50V	100V	±200 ppm/°C	10 - 1M	1 - 1M	
RAVF164D	0.063W	0.250W	50V	100V	±200 ppm/°C	10 - 1M	1 - 1M	
RAVF168D	0.063W	0.500W	25V	50V	±250 ppm/°C	-	1 - 1M	
					±200 ppm/°C	10 - 1M	-	
RAVF324D	0.125W	0.250W	200V	400V	±200 ppm/°C	22 - 1M	10 - 1M	
RAVF328N	0.063W	0.500W	25V	50V	±200 ppm/°C	-	22 - 1M	
RAVF328R	0.063W	0.500W	25V	50V	±200 ppm/°C	-	22 - 1M	

(1) Lesser of $\sqrt{P \cdot R}$ or maximum working voltage.

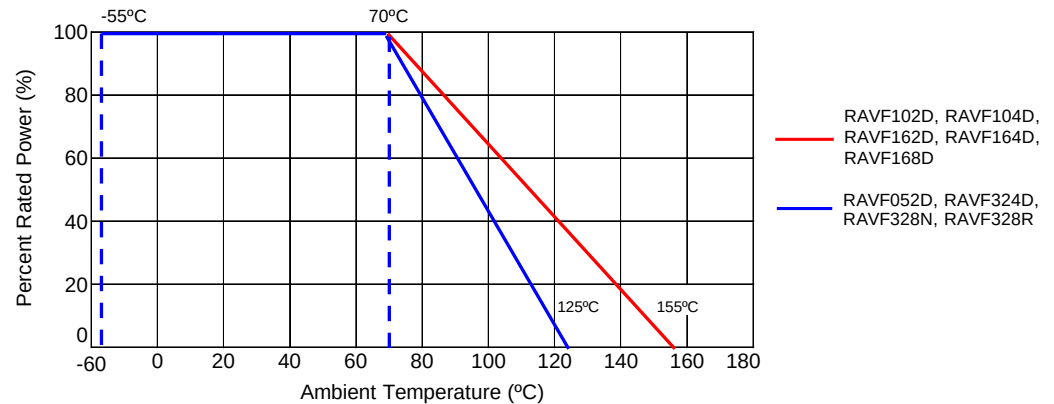
Schematics				
Isolated Circuit - 2D	Isolated Circuit - 4D	Isolated Circuit - 8D	Bussed Circuit - N	Bussed Circuit - R

Terminations		
RAVF - 2 Resistors / 4 Terminations (D)	RAVF - 4 Resistors / 8 Terminations (D)	RAVF - 8 Resistors / 10 Terminations (N/R)

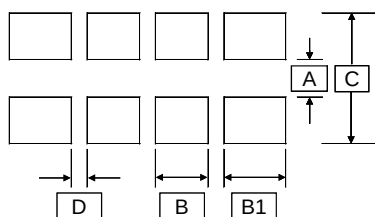
Mechanical Specifications									
Type / Code / # of Elements / Circuit Type	L Body Length	W Body Width	H Body Height	P Element Spacing	Q Termination Width	R Termination Width	D Bottom Termination	A Top Termination	Unit
RAVF052D	0.031 ± 0.004 0.80 ± 0.10	0.024 ± 0.004 0.60 ± 0.10	0.012 ± 0.002 0.30 ± 0.05	0.020 ± 0.006 0.50 ± 0.15	- -	0.014 ± 0.004 0.35 ± 0.10	0.006 ± 0.002 0.15 ± 0.05	0.006 ± 0.004 0.15 ± 0.10	Inches mm
RAVF102D	0.039 ± 0.004 1.00 ± 0.10	0.039 ± 0.004 1.00 ± 0.10	0.014 ± 0.004 0.35 ± 0.10	0.026 ± 0.002 0.65 ± 0.05	- -	0.013 ± 0.002 0.33 ± 0.05	0.010 ± 0.002 0.25 ± 0.05	0.006 ± 0.004 0.15 ± 0.10	Inches mm
RAVF104D	0.079 ± 0.008 2.00 ± 0.20	0.039 ± 0.006 1.00 ± 0.15	0.014 ± 0.006 0.35 ± 0.15	0.020 ± 0.006 0.50 ± 0.15	0.012 ± 0.004 0.30 ± 0.10	0.016 ± 0.004 0.40 ± 0.10	0.010 ± 0.004 0.25 ± 0.10	0.008 ± 0.004 0.20 ± 0.10	Inches mm
RAVF162D	0.063 ± 0.006 1.60 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.020 ± 0.006 0.50 ± 0.15	0.031 ± 0.002 0.80 ± 0.05	- -	0.024 ± 0.006 0.60 ± 0.15	0.012 ± 0.006 0.30 ± 0.15	0.012 ± 0.006 0.30 ± 0.15	Inches mm
RAVF164D	0.126 ± 0.008 3.20 ± 0.20	0.063 ± 0.008 1.60 ± 0.20	0.020 ± 0.004 0.50 ± 0.10	0.031 ± 0.002 0.80 ± 0.05	0.020 ± 0.004 0.50 ± 0.10	0.026 ± 0.004 0.65 ± 0.10	0.012 ± 0.006 0.30 ± 0.15	0.012 ± 0.008 0.30 ± 0.20	Inches mm
RAVF168D	0.157 ± 0.008 4.00 ± 0.20	0.063 ± 0.006 1.60 ± 0.15	0.016 ± 0.004 0.40 ± 0.10	0.020 ± 0.006 0.50 ± 0.15	0.010 ± 0.004 0.25 ± 0.10	0.015 ± 0.004 0.38 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.012 ± 0.008 0.30 ± 0.20	Inches mm
RAVF324D	0.200 ± 0.008 5.08 ± 0.20	0.122 ± 0.008 3.10 ± 0.20	0.022 ± 0.004 0.55 ± 0.10	0.050 ± 0.004 1.27 ± 0.10	0.031 ± 0.008 0.80 ± 0.20	- -	0.012 ± 0.008 0.30 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	Inches mm
RAVF328N	0.126 ± 0.006 3.20 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.022 ± 0.004 0.55 ± 0.10	0.025 ± 0.002 0.64 ± 0.05	0.013 ± 0.006 0.34 ± 0.15	0.019 ± 0.006 0.49 ± 0.15	0.010 ± 0.006 0.25 ± 0.15	0.012 ± 0.008 0.30 ± 0.20	Inches mm
RAVF328R	0.126 ± 0.006 3.20 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.022 ± 0.004 0.55 ± 0.10	0.025 ± 0.002 0.64 ± 0.05	0.013 ± 0.006 0.34 ± 0.15	0.019 ± 0.006 0.49 ± 0.15	0.010 ± 0.006 0.25 ± 0.15	0.012 ± 0.008 0.30 ± 0.20	Inches mm

Performance Characteristics	
Test	Test Results (JIS C 5202)
Load Life in Moisture	±3%
Temperature cycle	±1%
Load Life	±3%
Resistance to Soldering heat	±1%
Terminal Adhesion	±1%
Short Time Overload	±2%

Power Derating Curve:

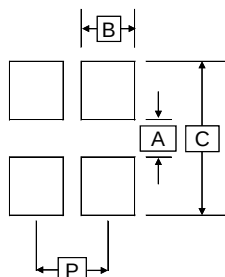


Recommended Pad Layout – RAVF104D



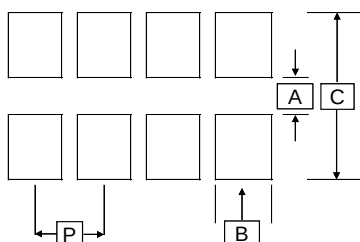
Type/Code	A	B	B1	C	D	Unit
RAVF104D	0.020 0.50	0.012 0.30	0.016 0.40	0.059 1.50	0.008 0.20	Inches mm

Recommended Pad Layout – RAVF162D



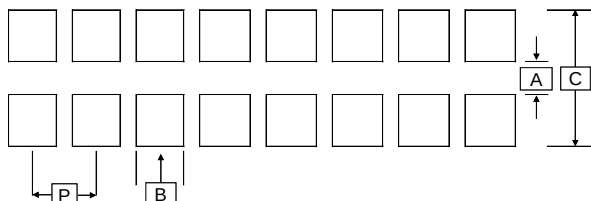
Type/Code	A	B	C	P	Unit
RAVF162D	0.031 0.80	0.020 0.50	0.122 3.10	0.031 0.80	Inches mm

Recommended Pad Layout – RAVF164D



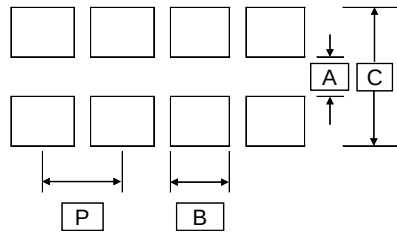
Type/Code	A	B	C	P	Unit
RAVF164D	0.031 0.80	0.025 0.63	0.122 3.10	0.031 0.80	Inches mm

Recommended Pad Layout – RAVF168D



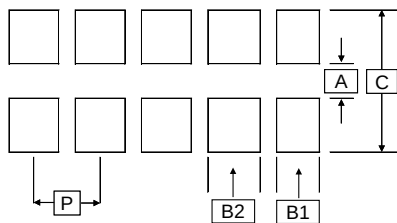
Type/Code	A	B	C	P	Unit
RAVF168D	0.039 1.00	0.012 0.30	0.110 2.80	0.020 0.50	Inches mm

Recommended Pad Layout – RAVF324D



Type/Code	A	B	C	P	Unit
RAVF324D	0.087 2.20	0.032 0.82	0.171 4.35	0.050 1.27	Inches mm

Recommended Pad Layout – RAVF328R



Type/Code	A	B1	B2	C	P	Unit
RAVF328R	0.031 0.80	0.013 0.34	0.018 0.45	0.122 3.10	0.025 0.64	Inches mm

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)
RAVF	Thick Film Surface Mount Chip Resistor Array Convex Terminations	SMD	YES(1)	100% Matte Sn over Ni	Jan-04 (Japan) Jul-04 (Taiwan)	04/01 04/27

Note (1): RoHS Compliant by means of exemption 7c-I.

"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

1	2	3	4	5	6	7	8	9	10	11	12	13	14										
R	A	V	F	1	6	4	D	J	T	1	0	K	0										
Product Series		Size		Tolerance ⁽¹⁾			Packaging				Resistance Value												
Code	Description	Code	Power Rating	Code	Tol	Value	Code	Description	Size	Quantity	Four characters with the multiplier used as the decimal holder.												
RAVF	Convex Termination	052D	0.031W	F	1%	E24	T	Tape and Reel	052D, 102D, 104D	10,000													
		102D	0.063W	G	2%				162D, 164D, 168D	5,000													
		104D	0.063W	J	5%				328N, 328R														
		162D	0.063W	Z	jumper				324D	4,000													
		164D	0.063W	Note (1): 1% tolerance is available in E24 values only. E96 values are generally not available. Contact factory for details.																			
168D	0.063W																						
324D	0.125W																						
328N	0.063W																						
328R	0.063W	D = Isolated N = Bussed R = Bussed																					