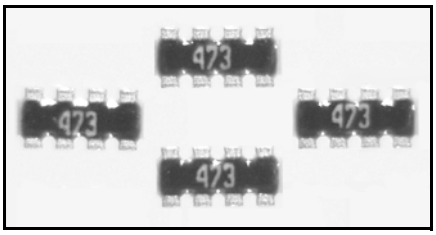
RAV Series — Convex Termination Chip Resistor Array

SEI

Features

- Thick film resistor element
- Multiple circuit types available
- Ideal SMD substitute for leaded networks
- RoHS compliant / lead-free available (RAVF)
- Auto-placement capability
- Square corner construction standard
- Zero ohm jumper available
- RAV 324D is standard with scalloped corner

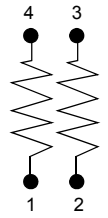
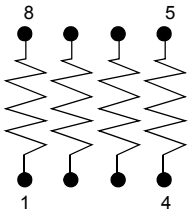
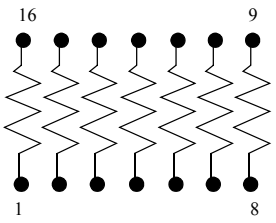
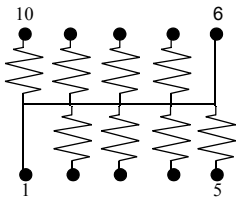
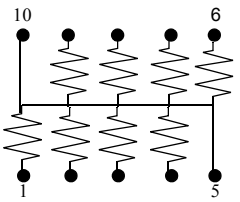


Electrical Specifications

Type / Code / # of Elements / Circuit Type	Power Rating (per element) @ 70°C	Power Rating (Entire Array) @ 70°C	Maximum Working Voltage*	Maximum Overload Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance	
						1%	2%, 5%
RAV 102D	0.063W	0.125W	25V	50V	±200 ppm/°C ±250 ppm/°C ±300 ppm/°C	– 22Ω – 1MΩ –	10Ω – 1MΩ – 1.0Ω – 9.9Ω
RAV 104D	0.063W	0.250W	25V	50V	±250 ppm/°C	22Ω – 10KΩ	1.0Ω – 1MΩ
RAV 162D	0.063W	0.125W	50V	100V	±200 ppm/°C	10Ω – 1MΩ	1.0Ω – 10MΩ
RAV 164D	0.063W	0.250W	50V	100V	±200 ppm/°C	1.0Ω – 10MΩ	1.0Ω – 1MΩ
RAV 168D	0.063W	0.500W	25V	50V	±200 ppm/°C ±250 ppm/°C	10Ω – 1MΩ –	– 1.0Ω – 1MΩ
RAV 324D	0.125W	0.250W	200V	400V	±200 ppm/°C	22Ω – 1MΩ	10Ω – 1MΩ
RAV 328N	0.063W	0.500W	25V	50V	±200 ppm/°C	–	22Ω – 1MΩ
RAV 328R	0.063W	0.500W	25V	50V	±200 ppm/°C	–	22Ω – 1MΩ

*Lesser of √PR or maximum working voltage.

Schematics

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

How to Order

RAV	16	4	D	10K	5%	R
SEI Type	Code	# of Elements	Circuit Type	Nominal Resistance	Tolerance	Packaging

SEI Type	Description
RAV	Convex
RAVF	Convex RoHS

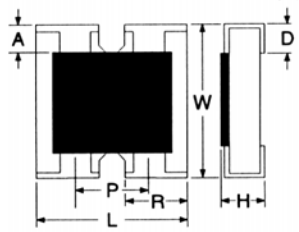
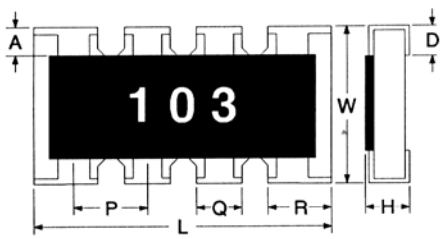
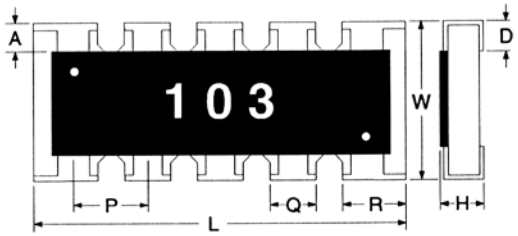
Code
10
16
32

Elements
2
4
8

Circuit Type
D = Isolated
N = Bussed
R = Bussed

Tolerance	Values
1%	E24
2%	E24
5%	E24

SEI Types	Pkg Qty	Description	Code
102D, 104D	10,000	Reel	R
162D, 164D, 168D, 328N, 328R	5,000		
324D	4,000		

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

Mechanical Specifications inches mm

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
RAV 102D	0.039 ± 0.004 1.00 ± 0.10	0.039 ± 0.004 1.00 ± 0.10	0.014 ± 0.002 0.35 ± 0.05	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
RAV 104D	0.079 ± 0.008 2.00 ± 0.20	0.039 ± 0.006 1.00 ± 0.15	0.014 ± 0.004 0.35 ± 0.10	0.020 ± 0.006 0.50 ± 0.15	0.012 ± 0.006 0.30 ± 0.15	0.016 ± 0.006 0.40 ± 0.15	0.010 ± 0.004 0.25 ± 0.10	0.006 ± 0.004 0.15 ± 0.10
RAV 162D	0.063 ± 0.006 1.60 ± 0.15	0.063 ± 0.006 1.60 ± 0.15	0.020 ± 0.006 0.50 ± 0.10	0.031 ± 0.002 0.80 ± 0.05	–	0.024 ± 0.006 0.60 ± 0.15	0.010 ± 0.004 0.25 ± 0.10	0.012 ± 0.008 0.30 ± 0.20
RAV 164D	0.126 ± 0.004 3.20 ± 0.10	0.063 ± 0.004 1.60 ± 0.10	0.020 ± 0.004 0.50 ± 0.10	0.031 ± 0.002 0.80 ± 0.05	0.016 ± 0.006 0.40 ± 0.15	0.024 ± 0.006 0.60 ± 0.15	0.010 ± 0.006 0.25 ± 0.15	0.012 ± 0.008 0.30 ± 0.20
RAV 168D	0.158 ± 0.008 4.0 ± 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	0.012 ± 0.004 0.30 ± 0.10	0.016 ± 0.004 0.40 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.012 ± 0.008 0.30 ± 0.20
RAV 324D	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
RAV 328N	0.126 ± 0.008 3.20 ± 0.20	0.063 ± 0.008 1.60 ± 0.20	0.020 ± 0.004 0.50 ± 0.10	0.025 ± 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
RAV 328R	0.126 ± 0.008 3.20 ± 0.20	0.063 ± 0.008 1.60 ± 0.20	0.020 ± 0.004 0.50 ± 0.10	0.025 ± 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

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%

Operating Temperature Range : -55°C to +150°C