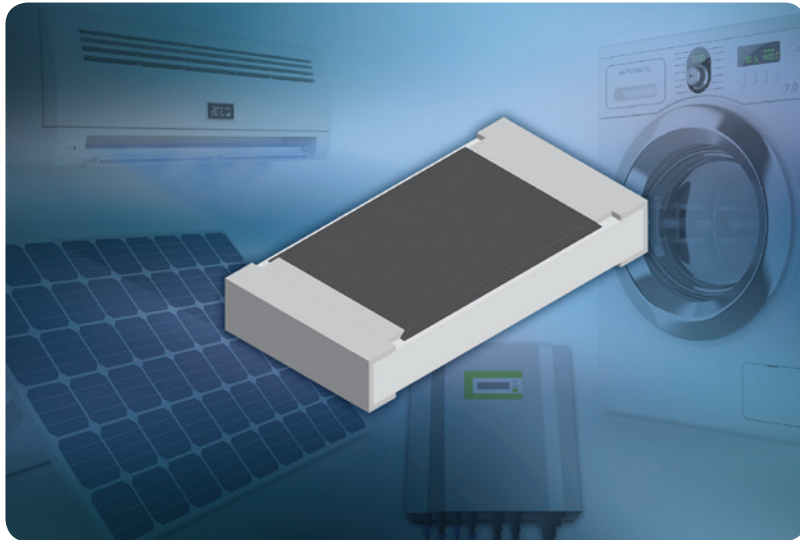




High-Voltage Thick Film Chip Resistor



KEY BENEFITS

- High operating voltage of up to 500 V
- Saves board space and placement cost by replacing multiple standard devices

APPLICATIONS

- High-voltage measurement
- Solar inverters
- Lighting ballasts
- Power supplies
- Inverter controlled white goods
- PWM controlled industrial motors

RESOURCES

- Datasheet: RCV e3 - www.vishay.com/doc?20054
- For technical questions contact thickfilmchip@vishay.com
- Material categorization: For definitions please see www.vishay.com/doc?99912

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THICK FILM CHIP RESISTORS

RCV e3

High-Voltage (up to 0.5 kV) Thick Film Chip Resistor

STANDARD ELECTRICAL SPECIFICATIONS								
MODEL	CASE SIZE INCH	CASE SIZE METRIC	POWER RATING P_{70} W	LIMITING ELEMENT VOLTAGE $U_{MAX.}$ AC_{RMS}/DC V	TEMPERATURE COEFFICIENT \pm ppm/K	TOLERANCE \pm %	RESISTANCE RANGE Ω	SERIES
RCV0805 e3	0805	RR 2012M	0.125	400	100	1	100K to 10M	E24; E96
					200	5		E24
RCV1206 e3	1206	RR 3216M	0.25	500	100	1	100K to 10M	E24; E96
					200	5		E24

Notes

- These resistors do not feature a lifetime limitation when operated within the limits of rated dissipation, permissible operating voltage and permissible film temperature. However, the resistance typically increases due to the resistor's film temperature over operating time, generally known as drift. The drift may exceed the stability requirements of an individual application circuit and thereby limits the functional lifetime.
- No marking.
- Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material.

TECHNICAL SPECIFICATIONS			
PARAMETER	UNIT	RCV0805	RCV1206
Rated dissipation P_{70} ⁽¹⁾	W	0.125	0.25
Limiting element voltage $U_{max.}$ AC_{RMS}/DC	V	400	500
Insulation voltage $U_{ins.}$ (1 min)	V	> 500	
Voltage coefficient of resistance chart	ppm/V	25	
Insulation resistance	Ω	> 10^9	
Operating temperature range	$^{\circ}C$	- 55 to + 155	
Weight	mg	5.5	10

Note

⁽¹⁾ The power dissipation on the resistors generates a temperature rise against the local ambient, depending on the heat flow support of the printed-circuit board (thermal resistance). The rated dissipation applies only if the permitted film temperature of 155 $^{\circ}C$ is not exceeded.

PART NUMBER AND PRODUCT DESCRIPTION					
Part Number: RCV1206100KFKEA					
R	C	V	1	2	0
			6	1	0
			0	0	K
					F
					K
					E
					A
MODEL	RESISTANCE	TOLERANCE	TCR	PACKAGING	
RCV0805 RCV1206	K = Thousand M = Million	F = \pm 1 % J = \pm 5 %	K = \pm 100 ppm/K N = \pm 200 ppm/K	EA, EB, EC	
Product Description: RCV1206 100 100K 1 % ET1 e3					
RCV1206	100	100K	1 %	ET1	e3
MODEL	TCR	RESISTANCE	TOLERANCE	PACKAGING	LEAD (Pb)-FREE
RCV0805 RCV1206	\pm 100 ppm/K \pm 200 ppm/K	100K = 100 k Ω 10M = 10 M Ω	\pm 1 % \pm 5 %	ET1, ET5, ET6	e3 = Pure tin termination finish

Revision 27-Mar-13