# CRA06P

Vishay Dale

# **Thick Film Resistor Array**





CRA06P Thick Film resistor array is constructed on a high grade ceramic body with concave terminations. A small package enables the design of high density circuits. The single component reduces board space, component counts and assembly costs.

### **FEATURES**

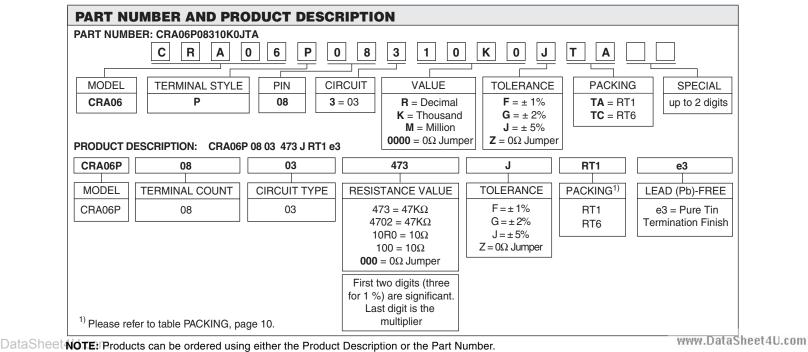
- · Concave terminal array with square corners
- · 8 terminal package with isolated resistors
- Wide ohmic range: 10R to 1M0
- · Lead (Pb)-free solder contacts on Ni barrier layer
- · Pure tin plating provides compatibility with Lead (Pb)-free and lead containing soldering processes
- Compatible with "Restriction of the use of Hazardous ٠ Substances" (RoHS) directive 2002/95/EC (issue 2004)
- Operating temperature range of -55°C to +150°C

STANDARD ELECTRICAL SPECIFICATIONS								
MODEL	POWER RATING	CIRCUIT	LIMITING ELEMENT	TEMPERATURE	TOLERANCE	RESISTANCE	E-SERIES	
	P <sub>70°C</sub>		VOLTAGE MAX.	COEFFICIENT		RANGE		
	w		V≌	ppm/K	%	Ω		
CRA06P	0.0625	03	50	200	$\pm$ 2; $\pm$ 5	10R - 1M0	24	
CITAUUI	0.0025	00		100	± 1	10R - 1M0	24 - 96	
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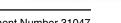
Jumper: Zero-Ohm-Resistor available;  $R \leq 50m \Omega$ 

TECHNICAL SPECIFICATIONS					
DADAMETED	UNIT	CRA06P			
PARAMETER		DataSheet4U com 03 CIRCUIT			
Rated Dissipation at 70°C	W	0.0625			
Limiting Element Voltage 1)	V≌	50			
Insulation Voltage (1min)	V <sub>dc/ac peak</sub>	100			
Category Temperature Range	°C	- 55 to + 150			
Insulation Resistance	Ω	> 10 10			

1) Rated voltage:  $\sqrt{P^*R}$ 



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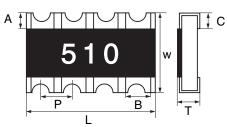


### Thick Film, Resistor Array

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#### DIMENSIONS

4-Resistor Device



PIN	DIMENSIONS [in millimeters]								
NO#	L	Α	в	С	Р	т	w		
8	3.20	0.30	0.40	0.40	0.80	0.60	1.6		
Tol	± 0.20	± 0.20	± 0.15	± 0.20	-	± 0.10	± 0.15		

	SOLDER PAD DIMENSIONS [in millimeters]					
	C	w	р	а	b	
WAVE	0.8	2.6	0.8	0.4	0.9	

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#### DESCRIPTION

## ASSEMBLY

Production is strictly controlled and follows a set of instructions established for reproducibility. A thick film layer is deposited on a high grade ceramic substrate. The resistor elements are covered by a protective coating designed for electrical, mechanical and climatic protection. The wrap around terminations receive a final pure tin on nickel plating.

The result of the determined production is verified by an extensive testing procedure. Only accepted products are laid directly into the paper tape in accordance with **EIA 481.** 

The resistors are suitable for processing on automatic SMD assembly systems. They are suitable for automatic soldering using wave and solder paste reflow. Due to the design, arrays have automatic placement capability. The resistors are Lead (Pb)-free, the pure tin plating provides compatibility with Lead (Pb)-free and Lead-containing soldering processes. All products comply with the CEFIC-EECA-EICTA list of legal restrictions on hazardous substances.

This includes full compatibility with the following directives:

- 2000/53/EC End of Vehicle Life Directive (ELV)
- 2000/53/EC Annex II to End of Vehicle Life Directive (ELV II)
- 2002/95/EC Restriction of the use of Hazardous Substances Directive (RoHS)
- 2002/96/EC Waste Electrical and Electronic Equipment Directive (WEEE)

Solderability is specified for 2 years after production or requalification. The permitted storage time is 20 years.

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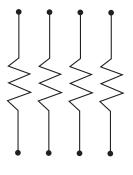
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### Thick Film, Resistor Array



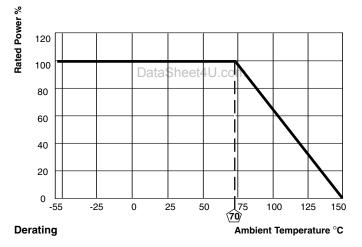
#### CIRCUIT

03 Circuit



8-pin

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PACKING							
MODEL		DIAMETER	PIECES	DITOU	PACKING CODE		
MODEL	TAPE WIDTH			PITCH	PAPER TAPE		
CRA06P	8 mm	180 mm/7"	5 000	4 mm	RT1		
	8 mm	330 mm/13"	20 000	4 mm	RT6		

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PERFORMANCE					
TEST	CONDITIONS OF TEST	TEST RESULTS			
Endurance Test at 70°C per EIA 575-3.14	1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"	± 1.0 %			
Overload per EIA 575-3.6	Short time overload	± 0.5 %			
Thermal Shock	per EIA 575-3.5	± 0.5 %			
Moisture Resistance	per EIA 575-3.10	± 1.0 %			
Resistance to Soldering Heat EIA 575 3.8	10 seconds at 260°C solder bath temperature	± 1.0 %			
High Temperature Exposure	per EIA 575-3.7	± 1.0 %			
Low Temperature Operation	per EIA-/ IS-30A-3.6	± 0.5 %			
Solderability & Leaching	EIA 575-3.12	95 % Coverage			

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