

Platinum-Resistance-Temperature-Detector: CRFC Series

Two burned-in top layers of glass reliably protect the platinum layer of the temperature sensor from external influences. The application temperature range for the temperature sensors is designed for -70°C...+400°C. The thermal load capacity is determined by the selected connection technology and housing. Delivery is taped on standard rolls in roll sections or loose in bags. Thanks to the high-quality layer structure, storage in the original packaging is also possible for a very long time without any problems.

Туре	CRFC Seri	es "Flip-Chi	p"	D
Operating temperature range	-70°C +	400°C		
Tolerance validity range IEC 60751	В	F 0.3	-70°C +400°C	N 40
Resistance value	Pt100 Pt500 Pt1000			
Recommended measuring current	Pt100: ≤1 Pt500: ≤1 Pt1000: ≤	.3 mA .1 mA 1.0 mA		
Temperature coefficient	3850 ppm	n/K (3810 , 3	3750 etc.)	
Long-term stability	max. R ₀ -d	rift 0.05 %/	year	
Storage	5 years ur	nder norma	l ambient conditions	│
Processing notes	Reflow so	Idering pre	ferred / Wire bonding	
Packaging	Packaging belt on a Small qua bulk pack	g unit of 4,0 7" plastic re ntity witho aging	00 pieces in an 8-mm eel with roll feed line ut roll feed line or as	REACH RoHS Compliance

Available models										
Temperature sensor				Connection		PU in	Tolerance class			
Туре	R_0/Ω	Design	В	L	Н	Material	L1	tape & reel	А	В
CRFC-0805-100	100	0805	1.25	2.0	0.42	Gold thick-film	0.35	4,000		420723
CRFC-0805-500	500	0805	1.25	2.0	0.42	Gold thick-film	0.35	4,000		420631
CRFC-0805-1000	1000	0805	1.25	2.0	0.42	Gold thick-film	0.35	4,000		420678
CRFC-1206-100	100	1206	1.6	3.25	0.42	Gold thick-film	0.35	4,000		420725
CRFC-1206-500	500	1206	1.6	3.25	0.42	Gold thick-film	0.35	4,000		420795
CRFC-1206-1000	1000	1206	1.6	3.25	0.42	Gold thick-film	0.35	4,000		420796

Customized models are available. Please send us your inquiry

Dimensional tolerances in mm: $\Delta B = \pm 0.1 / \Delta L = \pm 0.1 / \Delta H = \pm 0.1 / \Delta L1 = \pm 0.1$

Self-heating coefficients and response times						
Туре	Self-heating coefficient E in K/mW	Response times in seconds				
	Air	in Water	in Air			
	AII = 1 m/c	(v = 0.4 m/s)	(v = 1 m/s)			
	(V - 1 11/3)	t _{0.9}	t _{0.9}			
CRFC-0805	0.55	0.3	15			
CRFC-1206	0.45	0.4	18			

Changes and errors excepted

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Processing notes

All forms of reflow soldering are preferred. The temperature sensors could be damaged when soldering with a soldering iron. The manufacturer has tested lead-free SAC solder as well as leaded standard solder (up to 95 % Pb). The soldering temperature can be raised slightly in comparison to tin-plated components.

Type CRFSMD (flip chip): Depending on the solder used, it may be necessary to adapt the printed solder quantity compared to a sensor/component with wrap-around contact.

Application of the metallized top side: Optimized for soft-soldering in a reflow method Wire bonding is also possible

Recommended pad dimensions on the circuit board



Туре	Design	Design	А	В	D	L
	(imperial)	(metric)	(mm)	(mm)	(mm)	(mm)
CRFC-0805	0805	2012M	0.80	1.25	1.00	2.60
CRFC-1206	1206	3216M	0.80	1.50	2.00	3.60

Recommended soldering profile for lead-free solder, type SAC 305/405



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