

FEATURES

- Temperature Range -55°C ~ +155°C
- ±5% tolerance
- · High quality performance at economical prices
- · Compatible with automatic insertion equipment
- · Flame retardant type available
- · Weldable type with copper plated lead wire available
- Values below 1 Ω or above 10M Ω are available by special request, please ask for details

DERATING CURVE



CURRENT NOISE



TEMPERATURE COEFFICIENT

CF Series



PART NUMBERING SYSTEM



SERIES, WATTAGE, SIZE, VOLTAGE, DIMENSIONS, AND AVAILABLE PACKAGING



Series	Watts	Size	Voltage (max.)			Dimensio	ons (mm)	Standard Quantities Available			
			W.V.	O.V.	L max.	D max.	Н	d	Bulk	Tape and Reel	Ammo Pack
294	1W	Small	500	1,000	12	5.0	28	0.7	1,000	3,000	1,000
299	1/8W	Standard	200	400	3.5	1.85	28	0.45	1,000	5,000	2,000
291	1/4W	Standard	250	500	6.8	2.5	28	0.54	1,000	5,000	1,000
293	1/2W	Standard	350	700	10	3.5	28	0.54	1,000	3,000	1,000

STANDARD VALUES (Ω)

0.5	2.0	4.3	9.1	20	43	91	200	430	910	2K	3.9K	8.2K	18K	39K	82K	180K	390K	820K	1.8M	3.9M	8.2M
1.0	2.2	4.7	10	22	47	100	220	470	1K	2.2K	4.3K	9.1K	20K	43K	91K	200K	430K	910K	2M	4.3M	9.1M
1.1	2.4	5.1	11	24	51	110	240	510	1.1K	2.4K	4.7K	10K	22K	47K	100K	220K	470K	1M	2.2M	4.7M	10M
1.2	2.7	5.6	12	27	56	120	270	560	1.2K	2.7K	5.1K	11K	24 K	51K	110K	240K	510K	1.1M	2.4M	5.1M	15M
1.3	3.0	6.2	13	30	62	130	300	620	1.3K	ЗK	5.6K	12K	27K	56K	120K	270K	560K	1.2M	2.7M	5.6M	22M
1.5	3.3	6.8	15	33	68	150	330	680	1.5K	3.2K	6.2K	13K	30K	62K	130K	300K	620K	1.3M	ЗM	6.2M	
1.6	3.6	7.5	16	36	75	160	360	750	1.6K	3.3K	6.8K	15K	33K	68K	150K	330K	680K	1.5M	3.3M	6.8M	
1.8	3.9	8.2	18	39	82	180	390	820	1.8K	3.6K	7.5K	16K	36K	75K	160K	360K	750K	1.6M	3.6M	7.5M	



XICON PASSIVE COMPONENTS · (800) 628-0544

XC-600034 Date Revised: 9/28/05 Specifications are subject to change without notice. No liability or warranty implied by this information. Environmental compliance based on producer documentation.



Cement Power Resistors

CHARACTERISTICS

Characteristics		Limits	Test Methods (JIS C 5201-1)						
DC. Resistance	Must be within th tolerance.	e specified		5.1 The limit of error of measuring apparatus shall not exceed allowable range or 5% of resistance tolerance					
Temperature coefficient	Resist. Range < 10 Ω	T.C.R. 0 ~ ±3 0 ~ -4 0 ~ -7 0 ~ -1	50 00	5.2 Natural resistance change per temp. degree centigrade. R2-R1 x106 (PPM/°C) R1(t2-t1) R1: Resistance value at room temperature (t1) R2: Resistance value at room temp.plus 100°C (t2)					
Short time overload	Resistance changes $\pm (1 \% + 0.05\Omega)$ evidence of mech	Max. with no		5.5 Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds.					
Insulation Resistance	Insulation resista 10,000 MΩ Min	nce is		5.6 Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at DC potential respectively specified in the above list for 60 +10/ -0 seconds.					
Dielectric withstanding voltage	No evidence of fl mechanical dama insulation break o	age,arcing or		5.7 Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at AC potential respectively specified in the table 1 for 60 + 10/-0 seconds.					
Terminal strength	No evidence of m damage.	nechanical		 6.1 Direct load Resistance to a 2.5 kgs direct load for 10 secs. in the direction of the longitudinal axis of the terminal leads. Twist test : Terminal leads shall be bent through 90° at a point of about 6mm from the body of the resistor and shall be rotated through 360° about the original axis of the bent terminal in alternating direction for a total of 3 rotations. 					
Resistance to soldering heat	Resistance changes $\pm (1\% + 0.05\Omega)$ M evidence of mech	Max. with no		6.4 Permanent resistance change when leads immersed to 3.2 to 4.8 mm from the body in 350 °C \pm 10°C solder for 3 \pm 0.5 seconds					
Solderability	95 % coverage N	ſin.		 6.5 The area covered with a new , smooth clean , shiny and continuous surface free from concentrated pinholes. Test temp. of solder : 245°C ± 3°C Dwell time in solder : 2 ~ 3 seconds 					
				7.4 Resistance change after continuous 5 cycles for duty shown below:					
Temperature	Resistance chang			Step	Temperature	Time			
cycling	$\pm (1\% + 0.05\Omega)$ M			1	-55°C ±3°C	30 mins			
	evidence of mech	ianical damage	-	2	Room temp. +155°C ±2°C	10~15 mins			
				3 4	Room temp.	30 mins 10~15 mins			
Load life in	Resistance	value	ΔR/R	7.9 Resistance change after 1,000 hours operating at RCWV with duty cycle of (1.5 hours "on", 0.5 hour "off") in a humidity test chamber controlled at $40^{\circ}C \pm 2^{\circ}C$ and 90 to 95 % relative humidity					
humidity		< than 100KΩ >100KΩ	±3% ±5%						
	Resistance v	alue	ΔR/R	7.10 Permanent resistance change after					
Load life		< than 56KΩ > 56KΩ	± 2 % ± 3 %	cycle of (1.5 hours '	1,000 hours operating at RCWV with duty cycle of (1.5 hours "on", 0.5 hour "off") at $70^{\circ}C \pm 2^{\circ}C$ ambient				
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