

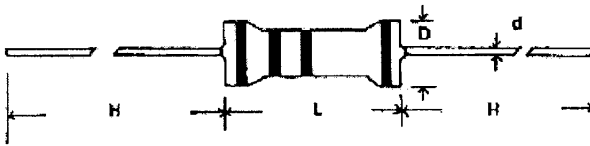
# Carbon Film Fixed Resistors

1/4W Kohleschicht-Widerstände 5%

## Features:

1. Exceptional stability
2. Meet performance requirement of CNS.2320.JIS.6402
3. Flame retardent coating and color banding is resistant to industrial solvents
4. Standard tolerances.  $\pm 2\%$   $\pm 5\%$
5. Variety of packaging: bulk, tape and reel, cut and formed

## Dimensions(mm)

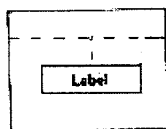


## General Specifications

TYPE	RAW ROD SIZES (mm)		FINISHED DIMENSIONS(mm)				RATED POWER	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RES. VALUES RANGES	
	(D')	(L')	D	L	H	d				$\pm 2\%$	$\pm 5\%$
CF1/8	$1.3 \pm 0.01$ -0.02	$2.7 \pm 0.1$	$1.85 \pm 0.2$	$3.5 \pm 0.4$	$29.0 \pm 0.5$	$0.5 \pm 0.05$	1/8W	250V	400V	10 $\Omega$ -220K	1 $\Omega$ -470K
CF1/4	$1.7 \pm 0.02$	$5.2 \pm 0.06$ -0.20	$2.3 \pm 0.1$	$6.5 \pm 0.5$	$27.0 \pm 0.5$	$0.6 \pm 0.05$	1/4W	300V	600V	10 $\Omega$ -1M	1 $\Omega$ -10M
CF1/2	$3.0 \pm 0.03$	$8 \pm 0.20$	$4.1 \pm 0.2$	$9.5 \pm 0.5$	$26.0 \pm 0.5$	$0.7 \pm 0.05$	1/2W	350V	700V	10 $\Omega$ -1M	1 $\Omega$ -10M
CF1/2S	$2.5 \pm 0.03$	$8 \pm 0.20$	$3.6 \pm 0.2$	$9.5 \pm 0.5$	$26.0 \pm 0.5$	$0.7 \pm 0.05$	1/2SW	350V	700V	10 $\Omega$ -1M	1 $\Omega$ -10M
CF1S	$3.5 \pm 0.03$	$10 \pm 0.20$	max4.5	$11 \pm 0.5$	$35 \pm 1$	$0.7 \pm 0.05$	1SW	400V	800V	10 $\Omega$ -1M	1 $\Omega$ -10M
CF1	$4 \pm 0.03$	$12 \pm 0.20$	5				1W				
CF2S	$4 \pm 0.03$	$14 \pm 0.20$	max5	$15 \pm 0.5$	$35 \pm 1$	$0.8 \pm 0.05$	2SW	450V	900V	10 $\Omega$ -1M	1 $\Omega$ -10M
CF2	$5 \pm 0.03$	$16 \pm 0.20$	6	17			2W				

1/4W Kohleschicht-Widerstände +/-5%

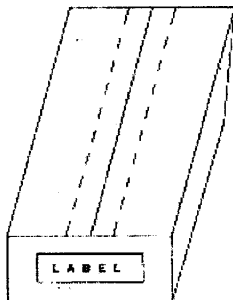
## Bulk packing



PE BAG



SMALL PE BAG



TYPE	PCS/ SMALL PE BAG	PCS/ PE BAG	PCS/ INNER BOX	DIMENSIONS(cm)		
				L	W	H
CF1/8	500	1000	10,000	19.5	12.5	7.4
CF1/4	500	1000	10,000	25.8	14.2	7.6
CF1/2S	250	500	5,000	30.3	14.5	8.4
CF1/2	250	500	5,000	30.3	14.5	8.4
CF1S	100		1,000	16	10	9
CF1	100		1,000	16	10	9
CF2S	100		1,000	16	10	9
CF2	100		500	16	10	9

**RAMTRONICS**

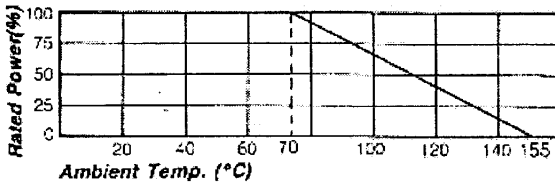
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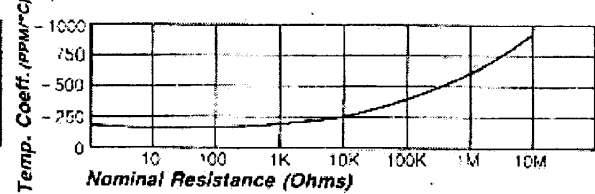
## Characteristics

LOAD LIFE	(rated voltage 1000hr)	± 3%
SOLDERING HEAT	350 ± 10(°C) 3sec.	± (1% + 0.05Ω)
MOISTURE RESISTANCE	40 ± 2(°C) 90 ~ 95%RH 96 ± 4hr	± 3%
SHORT TIME OVERLOAD	2.5 Times Rated Voltage 5sec.	± (1% + 0.05Ω)
TEMPERATURE CYCLING	55 ± 3(°C) ~ + 155 ± 2(°C) 5 Times	± (1% + 0.05Ω)
INSULATION RESISTANCE	AC500V 1min.	10 <sup>9</sup> MΩ (MIN)
LOW TEMPERATURE STORAGE	-65 ± 3 (°C) 24hrs	± (1% + 0.05Ω)
HIGH TEMPERATURE STORAGE	155 ± 3(°C) 100hrs	± (1% + 0.05Ω)

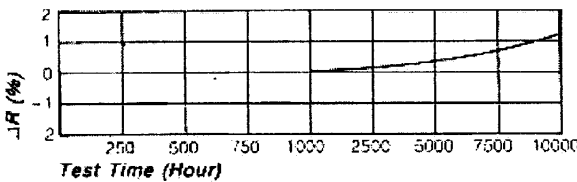
### Derating Power



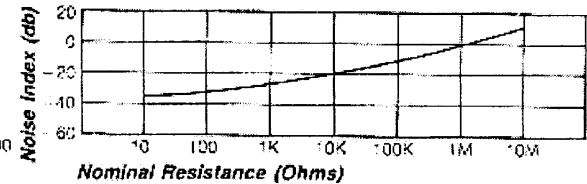
### Temperature Coefficient



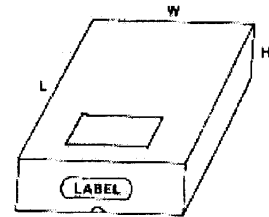
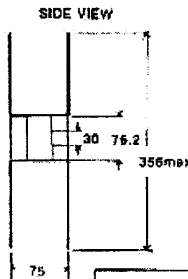
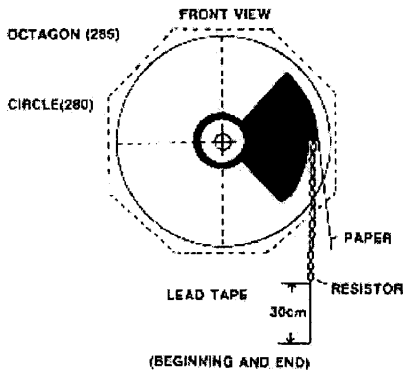
### Load Life



### Current Noise



### Tape On Reel unit: mm



TYPE	REEL No.	PCS INNER BOX	DIMENSIONS(cm) (INNER BOX)		
			L	W	H
CF1:4	285	5000	29.5	29	8
CF1:2(S)	285	2500	29.5	29	8
CF1:4	280	5000	31.5	30	8
CF1:2(S)	280	2500	31.5	30	8
CF1(S)	285	1000	29.5	29.5	9
CF2(S)	285	1000	29.5	29.5	9