

Carbon Film Fixed Resistors

CCF SERIES RESISTORS

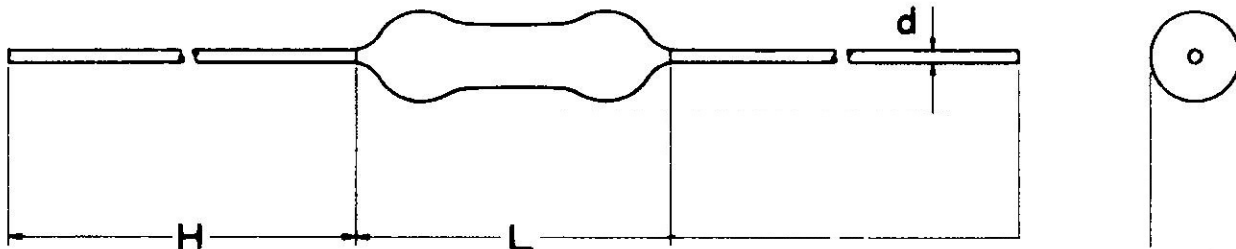
INTRODUCTION

The CCF series are low cost, high performance and highly reliable carbon film resistors.

They have been designed for miniature circuits that require resistors with greater stability and reliability than carbon composition types.

These resistors feature welded cap and lead construction, color coding resistant to all major cleaning solvents, uniform body sizing and special solder coated leads for easy soldering. The resistors exceed performance characteristics of Mil-R-11f.

The resistors are available card packed (50 to a sleeve, 1000 to a box), taped and reeled, and cut and formed to customer's specifications.



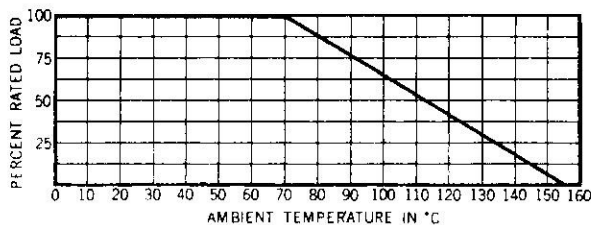
SPECIFICATIONS (as per illus.)

TYPE	BODY				LEADWIRE			
	LENGTH (L)		DIAMETER (D)		LENGTH (H)		DIAMETER (d)	
	inch	mm	inch	mm	inch	mm	inch	mm
CCF 25	.263 ± .012	6.7 ± 0.3	.095 ± .008	2.4 ± 0.2	1.1 ± 0.1	28.0 max.	.024 ± .001	0.60 ± 0.02
CCF 50	.374 ± .02	9.5 ± 0.5	.146 ± .008	3.7 ± 0.2	1.2 ± .12	38.0 ± 3.0	.031 ± .001	0.8 ± 0.03

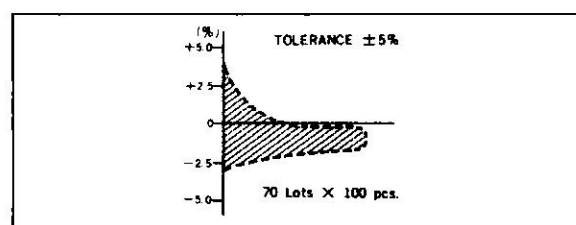
RATING

STYLE	POWER RATING	MAX WORKING V.	MAX OVERLOAD V.	RATING AMBIENT TEMP.	RESISTANCE RANGE ±5% (J)
CCF 25 ¼W	0.25W	300V	600V	70°C	2.2Ω ~ 4.7MΩ
CCF 50 ½W	0.50W	350V	700V		2.2Ω ~ 5.1MΩ

DERATING CURVES



RESISTANCE DISTRIBUTION

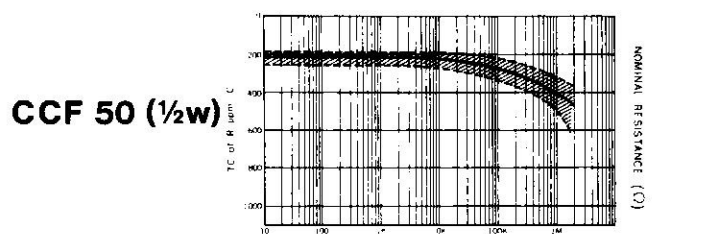
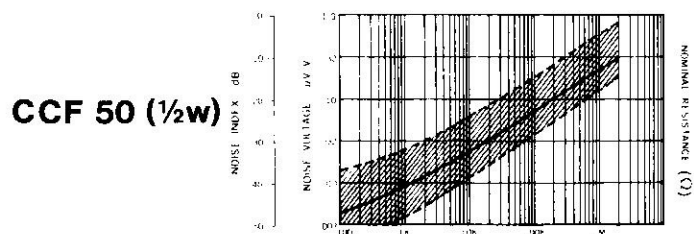
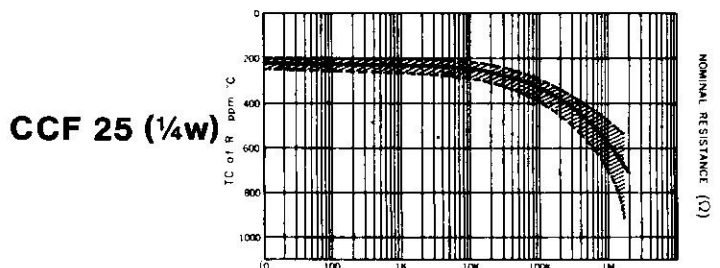
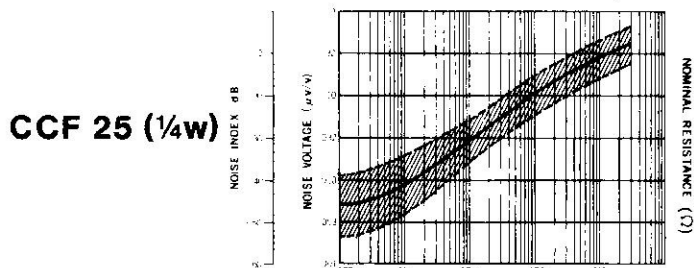


CHARACTERISTICS

REQUIREMENTS		CHARACTERISTICS					TEST METHOD	
							JIS C 6402	EIA RS-196A
Operating Temp. Range		-25 ~ 125°C						
Temp. coefficient (ppm/C)	T.C.R.	0 ~ -350	0 ~ -500	0 ~ -700	0 ~ -1,000	0 ~ -1,200	3.2	5.2.4
	STYLE	2.2Ω ~100KΩ	110KΩ ~470KΩ	510KΩ ~1MΩ	1.1MΩ ~1.5MΩ	1.6MΩ ~2.2MΩ		
	CCF 25	2.2Ω ~100KΩ	110KΩ ~680KΩ	750KΩ ~1.5MΩ	1.6MΩ ~2.2MΩ	2.4MΩ ~3.3MΩ		
Noise (μv/v)	Noise	0.1	0.3	0.6	1.0		RESISTOR NOISE TEST SET MODEL PA-103B NATIONAL JIS C 5202 5.9 TEST METHOD II	
	STYLE	2.2Ω ~22KΩ	24KΩ ~330KΩ	360KΩ ~1.5MΩ	1.6MΩ ~2.2MΩ			
	CCF 50	2.2Ω ~22KΩ	24KΩ ~560KΩ	620KΩ ~3.9MΩ	4.7MΩ ~5.1MΩ			
Dielectric Withstanding Voltage		No evidence of flashover, breakdown					(Resistance body: M.W. V5sec. V Block) (Lead wire insulated part: 100V 5sec)	
MAX RESISTANCE CHANGES	Short Time Overload	± 1% + 0.05Ω					3.3	5.2.5
	Vibration	± 2%					3.9	MIL-STD-202 201A
	Temp. Cycling	± 2%					3.8	5.2.3
	Effect of Soldering	± 1% + 0.05Ω					3.7	MIL-R-22684 4.6.9
	Moisture Resistance	± 5%					3.4	5.2.8
	Load Life	+ 3%					3.6	5.2.9

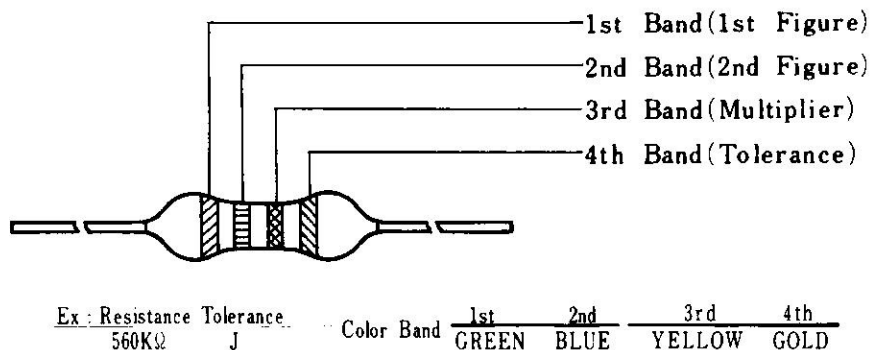
CURRENT NOISE LEVELS

TEMPERATURE COEFFICIENTS



COLOR CODE

Color	1st Band	2nd Band	3rd Band	4th Band
BLACK	0	0	10 ⁰	—
BROWN	1	1	10 ¹	± 1% (F)
RED	2	2	10 ²	± 2% (G)
ORANGE	3	3	10 ³	—
YELLOW	4	4	10 ⁴	—
GREEN	5	5	10 ⁵	—
BLUE	6	6	10 ⁶	—
VIOLET	7	7	10 ⁷	—
GRAY	8	8	10 ⁸	—
WHITE	9	9	10 ⁹	—
GOLD	—	—	10 ⁻¹	± 5% (J)
SILVER	—	—	10 ⁻²	± 10% (K)
PLAIN	—	—	—	—



Lake-View Electronics Corp. 1054 Pioneer Rd. Grafton, WI Ph: 262-377-8250 Fax: 262-375-0109

www.lvelectronics.com

Email: sales@lvelectronics.com