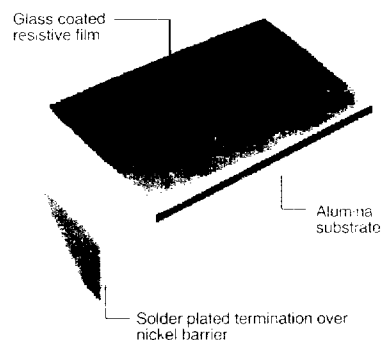


## FLAT CHIP RESISTOR

# CHF SERIES\*

- 1 ohm to 22 megohm
- Glass coated
- 1% and 5% tolerance
- 1/10 W and 1/8 W zerohm
- 1/16W through 1W @ 70°C
- 200 ppm/°C TC (100 ppm for 1%)

\* Manufactured in Japan



### Resistance Range (ohms):

|        |                 |
|--------|-----------------|
| 1/16W: | 1% - 10 - 1M    |
|        | 5% - 1 - 10M    |
| 1/10W: | 1% - 1 - 10M    |
|        | 5% - 1 - 20M    |
| 1/8W:  | 1% - 1 - 10M    |
|        | 5% - 1 - 22M    |
|        | 10% - 11M - 22M |
| 1/4W:  | 1% - 1 - 22M    |
|        | 5% - 10 - 10M   |
| 1/2W:  | 1% - 1 - 22M    |
|        | 5% - 10 - 1M    |
| 1W:    | 1% - 1 - 22M    |
|        | 5% - 10 - 1M    |

### Power Rating @ 70 °C (watts):

1/16, 1/10, 1/8, 1/4, 1/2, 1

### Tolerance: 1% and 5%

### Temperature Range:

-55 °C to +125 °C

### Temperature Coefficient:

200 ppm/°C (normally ±5% Tol.)  
100 ppm/°C (normally ±1% Tol.)  
(values below 10 ohm, TCR is ±300 ppm/°C)  
C603 (1/16W) available only in ±200 ppm/°C

### Working Voltage:

100V for 1/10W; 200V for 1/8W, 1/4W, 1/2W, and 1W; 50V for 1/16W

### Maximum Overload Voltage:

100V for 1/16W; 200V for 1/10W; 400V for 1/8W, 1/4W, 1/2W and 1W

### Materials of Construction:

Glass coated thick film element on 96% alumina substrate

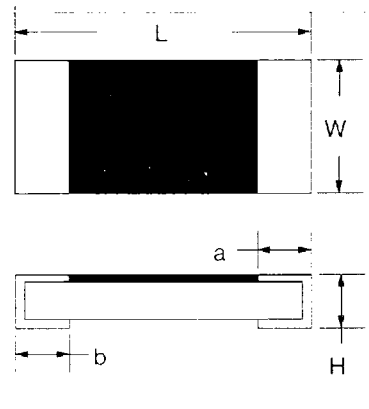
### Terminations: 60/40 solder-plated

nickel barrier layer over palladium-silver.

## SPECIFICATIONS:

### DIMENSIONS (Inches and (mm)):

| Type               | L                         | W                         | H                        | a                        | b                                     |
|--------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------------------|
| CHF 1/16<br>(0603) | 0.062±0.004<br>(1.6±0.1)  | 0.031±0.004<br>(0.8±0.1)  | 0.020±0.004<br>(0.5±0.1) | 0.012±0.004<br>(0.3±0.1) | 0.008±0.004<br>(0.2±0.1)              |
| CHF 1/10<br>(0805) | 0.079±0.008<br>(2.01±0.2) | 0.049±0.008<br>(1.25±0.2) | 0.020±0.004<br>(0.5±0.1) | 0.016±0.008<br>(0.4±0.2) | 0.12 ±0.008/-0.004<br>(0.3 ±0.2/-0.1) |
| CHF 1/8<br>(1206)  | 0.126±0.008<br>(3.2±0.2)  | 0.063±0.008<br>(1.6±0.2)  | 0.024±0.004<br>(0.6±0.1) | 0.020±0.008<br>(0.5±0.2) | 0.12 ±0.008/-0.004<br>(0.3 ±0.2/-0.1) |
| CHF 1/4<br>(1210)  | 0.126±0.008<br>(3.2±0.2)  | 0.098±0.008<br>(2.5±0.2)  | 0.24±0.004<br>(0.6±0.1)  | 0.020±0.008<br>(0.5±0.2) | 0.12±0.008<br>(0.3±0.2)               |
| CHF 1/2<br>(2010)  | 0.200±0.008<br>(5.1±0.2)  | 0.098±0.008<br>(2.5±0.2)  | 0.024±0.004<br>(0.6±0.1) | 0.023±0.008<br>(0.6±0.2) | 0.12±0.008<br>(0.3±0.2)               |
| CHF 1<br>(2512)    | 0.256±0.008<br>(6.5±0.2)  | 0.126±0.008<br>(3.2±0.2)  | 0.024±0.004<br>(0.6±0.1) | 0.023±0.008<br>(0.6±0.2) | 0.12±0.008<br>(0.3±0.2)               |



## PERFORMANCE DATA

| Standard Test                                                                                                                  | Max ΔR (+0.1 ohm)           |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Load Life (1000 hrs.):                                                                                                         | ±3.0%                       |
| Terminal Strength (chip mounted in center of 90 mm long board deflected 5mm so as to exert pull on chip contacts for 10 sec.): | ±1.0% no cracking or damage |
| Moisture Resistance (10 cycles, 240 hrs) 95% R.H.:                                                                             | ±2.0%                       |
| Temperature Cycle (-55°C/150°C 5 cycles):                                                                                      | ±1.0%                       |
| Effect of Solder (270°C, 10 sec.):                                                                                             | ±1.0%                       |
| Short Time Overload (5 sec @ V = 2.5 √PxR, V<200 V for 1/10W, V<400 V for 1/8W):                                               | ±2.0%                       |
| Low Temperature Operation @ -55°C 1000 hrs.:                                                                                   | ±1.0%                       |
| Solderability 5 sec., 230°C:                                                                                                   | 95% min. coverage           |

## PACKAGING: Tape

Paper Tape: 5000 pcs/reel = 1/16, 1/10, 1/8, 1/4W

Embossed Plastic Tape: 4000 pcs/reel = 1/4, 1/2, 1W

## HOW TO ORDER:

Sample Part No.

CHF1/8 2203 J E LT

IRC Type

Resistance

Tolerance

Tape Type

E = Embossed Plastic P = Paper

Lead Tape & Reel