

# CADDOCK Power Film Resistors



## MP725 D-PAK STYLE

### Features:

- Non-Inductive Design
- Values as Low as 0.020Ω
- Resistor Electrically Isolated from Heat Sink

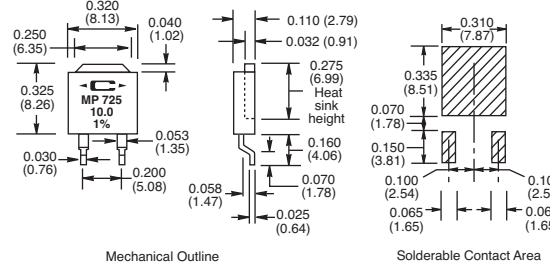
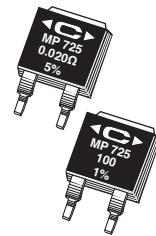
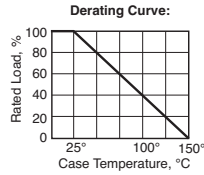
**\*Derating Note:** The case temperature is to be used for purposes of establishing the maximum applied power. See Derating Curve. The case temperature measurement is made on the metal mounting tab against the molded body. Derate appropriately for the ambient temperature range, the thermal resistance of the mounting surface, and the temperature limitations of the adjacent materials (such as glass epoxy). The Thermal Resistance (film to case) is 5.00°C/W. For additional technical information refer to the Applications Note at [www.caddock.com](http://www.caddock.com). Power dissipation is 2.5 watts, at an ambient temperature of 25°C, when mounted on a standard pcb (ex. FR-4 or G-10) with double sided copper board (2 ounce) 1 inch X 1 inch X .063 inch (thick).

**Soldering Note:** The case temperature of the MP725 should not exceed +219°C during reflow soldering or any other soldering process. See the applications note at [www.caddock.com](http://www.caddock.com) for more information.

### Specifications:

- Power Rating: 25 W at +25°C Case Temp. (see Derating Note for Power Rating)
- Temp. Coeff. ΔR taken at +150°C, ref to +25°C  
0.50Ω to 1.00 KΩ: -20 to +80 ppm/°C  
0.050Ω to 0.49Ω: 0 to +200 ppm/°C  
0.020Ω to 0.049Ω: 0 to +300 ppm/°C

### DIMENSIONS: IN and (mm)



Power Resistors

Table of Values in (Ω)		
0.02	2	75
0.05	5	100
0.1	10	200
0.2	20	500
0.5	25	1K
1	50	

MOUSER STOCK NO.	Caddock Part No.	Case Style	*Power Rating	Thermal Res. (Film to Case)	Max. Operating Voltage AC/DC	Ohm Range (See Table of Stocked Values)	Tol. ±	Price Each			
								1	10	25	50
684-MP725-Value	MP725-Value-Tol.	D-Pak Style	25 W	5.0°C/W	Power Limited	0.02	5%	7.26	5.80	5.37	5.08
		D-Pak Style	25 W	5.0°C/W	Power Limited	0.05	1%	7.26	5.80	5.37	5.08
		D-Pak Style	25 W	5.0°C/W	Power Limited	0.1 to 0.5	1%	5.36	4.28	3.97	3.58
		D-Pak Style	25 W	5.0°C/W	200 V	1 to 5	1%	4.96	3.96	3.66	3.48
		D-Pak Style	25 W	5.0°C/W	200 V	10 to 1K	1%	4.54	3.62	3.35	3.17

Caddock

## MK132V/ MK632V SERIES

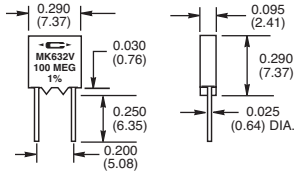
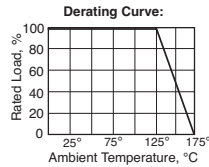
### Features:

- Non-Inductive Design
- Values from 1Ω to 100MΩ
- Compact Footprint
- Can replace many RN Type Resistors

### Specifications:

- Power: 0.75 W at +125°C
- Voltage: 400V at +125°C
- Temp. Coeff. -15°C to +105°C, ref. +25°C  
5Ω to 5MΩ: ±50 ppm/°C  
10MΩ to 100MΩ: ±80 ppm/°C  
1Ω to 2Ω: ±200 ppm/°C

Table of Values in (Ω)			
1	200	50K	10M
2	500	100K	20M
5	1K	200K	50M
10	2K	500K	100M
20	5K	1M	
50	10K	2M	
100	20K	5M	



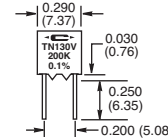
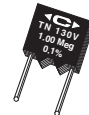
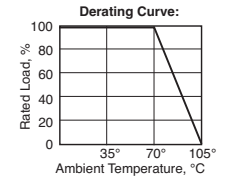
## TN130V SERIES

### Features:

- Non-Inductive Design
- Values from 1KΩ to 1MΩ
- Compact Footprint

### Specifications:

- Power Rating: 0.30W at +70°C
- Voltage Rating: 200V at +70°C
- Temp. Coeff. ± 10 ppm/°C  
ΔR taken at 0°C and +70°C, ref. to +25°C



MOUSER STOCK NO.	Ohm Range (See Table of Stocked Values)	Tol. ±	Price Each			
			1	10	25	50
684-MK132V-Value	1 to 20	1%	6.93	5.54	5.13	4.85
	50	1%	4.36	3.49	3.23	3.05
	100 to 50K	1%	3.62	2.90	2.68	2.53
	100K to 500K	1%	4.36	3.49	3.23	3.05
684-MK632V-Value	1M to 5M	1%	5.64	4.50	4.16	3.95
	10M	1%	5.99	4.79	4.42	4.19
	20M to 100M	1%	7.22	5.78	5.35	5.06

MOUSER STOCK NO.	Caddock Part No.	Price Each			
		1	10	25	50
684-TN130V-1K	TN130V-1K-0.1%-10ppm	7.50	6.00	5.54	5.25
684-TN130V-2K	TN130V-2K-0.1%-10ppm	7.50	6.00	5.54	5.25
684-TN130V-5K	TN130V-5K-0.1%-10ppm	7.50	6.00	5.54	5.25
684-TN130V-10K	TN130V-10K-0.1%-10ppm	7.50	6.00	5.54	5.25
684-TN130V-20K	TN130V-20K-0.1%-10ppm	7.50	6.00	5.54	5.25
684-TN130V-50K	TN130V-50K-0.1%-10ppm	7.50	6.00	5.54	5.25
684-TN130V-100K	TN130V-100K-0.1%-10ppm	8.67	6.93	6.42	6.07
684-TN130V-200K	TN130V-200K-0.1%-10ppm	9.73	7.81	7.22	6.83
684-TN130V-500K	TN130V-500K-0.1%-10ppm	11.23	8.99	8.32	7.87
684-TN130V-1M	TN130V-1Meg-0.1%-10ppm	12.74	10.19	9.41	8.91

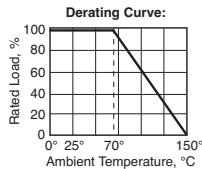
# CADDOCK Precision Current Sense Resistors - 1 Watt and 2 Watt



## SR SERIES

### Features:

- Non-Inductive Design.
- Kelvin (4 wire) Leads
- Excellent Long Term Stability
- Compact Footprint
- Values as low as 0.008Ω ±1%

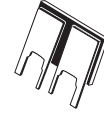
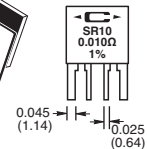


### Specifications:

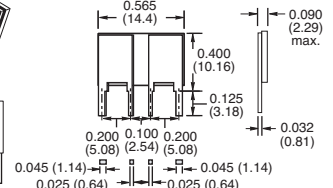
- Power Rating: SR10: 1 W at +70°C, SR20: 2 Watts at +70°C (See Derating Curve)
- Temp. Coeff. -15°C to +105°C, ref. +25°C  
0.10Ω to 1.00Ω: -50 to +100 ppm/°C  
0.025Ω to 0.075Ω: 0 to +150 ppm/°C  
0.008Ω to 0.020Ω: 0 to +200 ppm/°C



SR10: 1 W



SR20: 2 Watt



### Model: SR10

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Caddock Part No.	Ohm Range (Ω)	Tol. ±	Price Each			
				1	10	25	50
684-SR10-0.008	SR10-0.008-1%	0.008	1%	4.18	3.35	3.09	2.94
684-SR10-0.01	SR10-0.010-1%	0.010	1%	4.18	3.35	3.09	2.94
684-SR10-0.02	SR10-0.020-1%	0.020	1%	3.62	2.90	2.68	2.53
684-SR10-0.05	SR10-0.050-1%	0.050	1%	3.62	2.90	2.68	2.53
684-SR10-0.1	SR10-0.10-1%	0.10	1%	3.62	2.90	2.68	2.53
684-SR10-0.2	SR10-0.20-1%	0.20	1%	3.62	2.90	2.68	2.53
684-SR10-0.5	SR10-0.50-1%	0.50	1%	3.62	2.90	2.68	2.53
684-SR10-1.0	SR10-1.00-1%	1.00	1%	3.62	2.90	2.68	2.53

### Model: SR20

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Caddock Part No.	Ohm Range (Ω)	Tol. ±	Price Each			
				1	10	25	50
684-SR20-0.008	SR20-0.008-1%	0.008	1%	6.29	5.02	4.64	4.40
684-SR20-0.01	SR20-0.010-1%	0.010	1%	6.29	5.02	4.64	4.40
684-SR20-0.02	SR20-0.020-1%	0.020	1%	5.48	4.38	4.05	3.84
684-SR20-0.05	SR20-0.050-1%	0.050	1%	5.48	4.38	4.05	3.84
684-SR20-0.1	SR20-0.10-1%	0.10	1%	5.48	4.38	4.05	3.84
684-SR20-0.2	SR20-0.20-1%	0.20	1%	5.48	4.38	4.05	3.84
684-SR20-0.5	SR20-0.50-1%	0.50	1%	5.48	4.38	4.05	3.84
684-SR20-1.0	SR20-1.00-1%	1.00	1%	5.48	4.38	4.05	3.84

