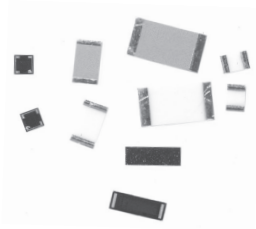


## Single High Value Chip Resistors



Actual Size

These high value resistors are manufactured using thin film technology and are available with improved performance and size when compared to thick film counterparts.

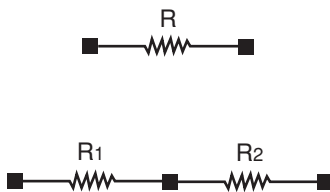
### FEATURES

- Ohmic values to hundred megohms
- High Stability
- Low Noise
- Tight Tolerance

### TYPICAL PERFORMANCE

	ABS
TCR	50
TOL	0.1

### SCHEMATIC AND PATTERN



### POWER RATING


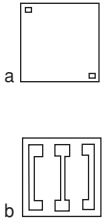

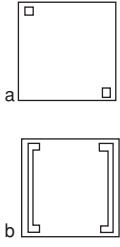

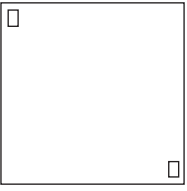
Pn @ +70°C {derate (To 0 @ +155°C)}		
CS	22	0.125W
CS	33	0.25W
CS	44	0.38W
CS	55	0.5W
CS	515	1W
CS	522	5W

### STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
MATERIAL	PASSIVATED CHROMIUM SILICON	
Absolute TCR:	$\pm 100\text{ppm}/^\circ\text{C}$ (50ppm/ $^\circ\text{C}$ on request)	- 55°C to + 125°C
Absolute Tolerance:	down to $\pm 0.1\%$	
Power Rating	See table above	
Stability ( $\Delta R$ )	< 0.2%	1000 hrs. @ + 70°C
Voltage Coefficient	< 0.1ppm/Volt	
Working Voltage	100 Volts	
Operating Temperature Range	- 55°C to + 155°C	
Storage Temperature Range	- 55°C to + 155°C	
Noise	< - 35dB Typical	
Thermal EMF	< 0.01 $\mu\text{V}/^\circ\text{C}$	
Shelf Life Stability	200ppm	1 Year

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TYPE AND SIZE	CS 22	CS 33	CS 44	CS 55	CS 515	CS 522
Standard Configuration and Sizes	 (0.6 x 0.6)mm <sup>2</sup>	 (0.8 x 0.8)mm <sup>2</sup>	 (1 x 1)mm <sup>2</sup>	 (1.3 x 1.3)mm <sup>2</sup>	 (3.8 x 1.3)mm <sup>2</sup>	 (6.5 x 6.5)mm <sup>2</sup>
Max. Ohmic Value	5M	a=15M b=10M	40M	a=100M b=20M	100M	200M
Power Rating at + 25°C	0.125W	0.250W	0.38W	0.5W	1W	5W

MECHANICAL SPECIFICATIONS	
Resistive Element	Passivated Chromium Silicon
Substrate Material	Silicon (Alumina on request)
Passivation	Silicon Nitride
Bonding Pads	Aluminum

**How to Order**

Type	Size	Ohmic Value	Tolerance	Termination
<b>CS</b>	<b>22</b>	<b>IM</b>	<b>F</b>	<b>A</b>
	<b>22</b>	Per table	±0.1%	<b>A: Aluminum</b>
	<b>33</b>		±0.5%	
	<b>44</b>		±1.0%	
	<b>55</b>		±2.0%	
	<b>515</b>		±5.0%	
	<b>522</b>		±10%	

HYBRID