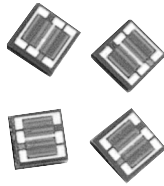


## Dual Value Chip Resistor, Center Tap



Actual Size

Chromium silicon thin film is very well suited to produce high density and high ohmic value resistor chips. Performances and sizes are greatly improved compared to Thick Film counterparts. The center tap configuration offers a greater flexibility for hybrid layout design.

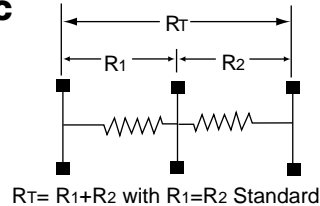
### FEATURES

- Center tap feature
- Small size
- Very high ohmic values
- Good stability

### TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	100	5
	ABS	RATIO
TOL	0.5	0.5

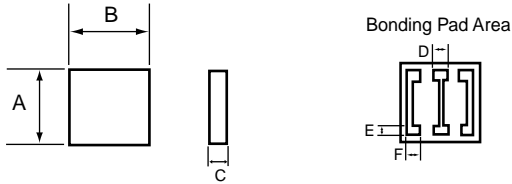
### SCHEMATIC



STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	
CONDITIONS		
<b>MATERIAL</b>	<b>PASSIVATED CHROMIUM SILICON</b>	
<b>Resistance Range</b>	10K ohms to 5M ohms	for $R_T = R_1 + R_2$
<b>TCR:</b>	<b>Tracking</b>	$\pm 5\text{ppm}/^\circ\text{C}$
	<b>Absolute</b>	$\pm 100\text{ppm}/^\circ\text{C}$ ( $\pm 50\text{ppm}/^\circ\text{C}$ on request)
<b>Tolerance:</b>	<b>Ratio</b>	1/1 standard
	<b>Absolute</b>	$\pm 0.5\%$ , $\pm 1\%$ , $\pm 2\%$
	<b>Matching</b>	$\pm 0.5\%$ standard
<b>Power Rating</b>	250mW at $+25^\circ\text{C}$ , 125mW at $+70^\circ\text{C}$ , 50mW at $+125^\circ\text{C}$	
<b>Stability</b>	$\pm 0.1\%$ typical, $\pm 0.2$ Max.	2000 hrs. @ $+70^\circ\text{C}$ Under
<b>Voltage Coefficient</b>	0.1ppm/Volt	
<b>Working Voltage</b>	100 Volts DC on $R_T$	
<b>Operating Temperature Range</b>	$-55^\circ\text{C}$ to $+155^\circ\text{C}$	
<b>Storage Temperature Range</b>	$-55^\circ\text{C}$ to $+155^\circ\text{C}$	
<b>Noise</b>	$< -35\text{dB}$ typical	MIL-STD-202 Method 308
<b>Thermal EMF</b>	$< 0.01\mu\text{V}/^\circ\text{C}$	
<b>Shelf Life Stability</b>	200ppm	1 year @ $+25^\circ\text{C}$



**DIMENSIONS** in inches and millimeters



DIMENSION	INCHES	MILLIMETERS
A	0.03 ± 0.004	0.76 ± 0.10
B	0.03 ± 0.004	0.76 ± 0.10
C	0.01 ± 0.015	0.25 to 0.40
D	0.004	0.10
E	0.006	0.15
F	0.006	0.15

MECHANICAL SPECIFICATIONS	
Resistive Element	Chromium Silicon
Passivation	Silicon Nitride
Substrate Material	Silicon (Consult Vishay for AL <sub>2</sub> O <sub>3</sub> )
Bonding Pads	Aluminum

**HYBRID**

**How to Order**

Series	R <sub>T</sub> Ohmic Value	Absolute Tolerance	Matching Tolerance
<b>CS 33</b>	<b>100K</b> $R_T = R_1 + R_2$	<b>±0.5%</b> ±0.5% ±1% ±2%	<b>0.5%</b>



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