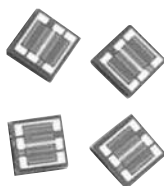


Dual Value Chip Resistors, Center Tap



 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 30 mil x 30 mil
- Very high ohmic values (up to 5 M Ω)
- Good stability 0.1 % (2000 h, rated power, at + 70 °C)
- Wirebondable

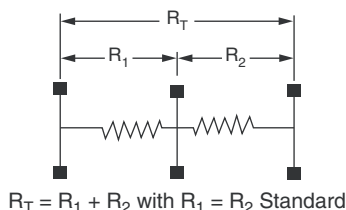


RoHS
COMPLIANT
GREEN
(5-2008)*

TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	100 ppm/°C	5 ppm/°C
	ABS	RATIO
TOL.	0.5 %	0.5 %

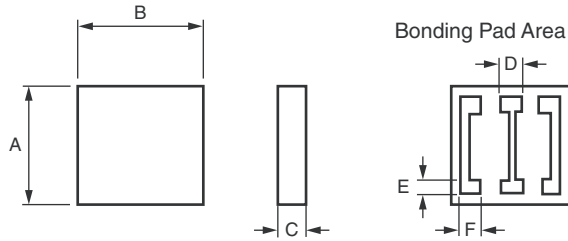
SCHEMATIC



STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	
MATERIAL	PASSIVATED CHROMIUM SILICON	
Resistance range	10 k Ω to 5 M Ω	for $R_T = R_1 + R_2$
TCR:	Tracking	± 5 ppm/°C
	Absolute	± 100 ppm/°C (± 50 ppm/°C on request)
Ohmic value	Ratio	1/1 standard (unequal values: please consult)
Tolerance:	Absolute	± 0.5 %, ± 1 %, ± 2 %
	Matching	± 0.5 % standard
Power rating	250 mW at + 25 °C, 125 mW at + 70 °C, 50 mW at + 125 °C	
Stability	± 0.1 % typical, ± 0.2 maximum	2000 h at + 70 °C under Pn
Voltage coefficient	0.1 ppm/V	
Working voltage	100 V _{DC} on R_T	
Operating temperature range	- 55 °C to + 155 °C	
Storage temperature range	- 55 °C to + 155 °C	
Noise	< - 20 dB typical	MIL-STD-202 Method 308
Thermal EMF	< 0.01 μ V/°C	
Shelf life stability	200 ppm	1 year at + 25 °C

* Please see document "Vishay Green and Halogen-Free Definitions (5-2008)" <http://www.vishay.com/doc?99902>

DIMENSIONS



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 ± 0.40
D	0.004	0.10
E	0.006	0.15
F	0.006	0.15

MECHANICAL SPECIFICATIONS

Resistive element	Chromium Silicon
Passivation	Silicone Nitride
Substrate material	Silicon (Consult Vishay for Al ₂ O ₃)
Bonding pads	Aluminum

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CS33-100KF1MD0016 (preferred part number format)

C	S	3	3	-	1	0	0	K	F	1	M	D	0	0	1	6
GLOBAL MODEL		R1 VALUE		ABS. TOLERANCE		R2 VALUE		RAT. TOLERANCE		OPTION						
		Decimal R, K or M		D = ± 0.5 % F = ± 1.0 % G = ± 2.0 %		Decimal R, K or M		D = ± 0.5 %		leave blank if no option						
Historical Part Number example: CS 33 100K 1M 1 % 0.5 % R0016 (will continue to be accepted)																
CS 33				100K 1M				1 % 0.5 %				R0016				
HISTORICAL MODEL				R1/R2 VALUE				ABS. TOLERANCE AND RATIO TOLERANCE				OPTION				



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