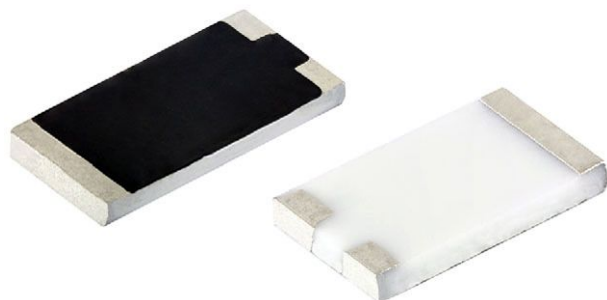


# Thick Film Chip Dividers, Medium Voltage



## FEATURES

- Voltage up to 1415 V
- Maximum resistance ratio of 700:1
- Flow solderable
- Tape and reel packaging available
- Termination style:  
3-sided wraparound termination
- Termination material:  
solder-coated nickel barrier terminations
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS\***  
Available  
**HALOGEN  
FREE**

## LINKS TO ADDITIONAL RESOURCES



## Note

\* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

## STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	CASE SIZE	POWER RATING $P_{70^{\circ}\text{C}}$ W	MAXIMUM WORKING VOLTAGE <sup>(1)</sup> V	RESISTANCE RANGE <sup>(2)</sup> $\Omega$	TOLERANCE <sup>(3)</sup> $\pm \%$	TEMPERATURE COEFFICIENT <sup>(4)</sup> (-55 °C to +155 °C) $\pm \text{ppm}/^{\circ}\text{C}$	TCR TRACKING $\pm \text{ppm}/^{\circ}\text{C}$
CDMV 2512	2512	1	1415	10K to 75M	0.5, 1, 2, 5, 10	100	50 (typical)

## Notes

- (1) Continuous working voltage shall be  $\sqrt{P \times R}$  or maximum working voltage, whichever is less
- (2) Resistance values are calibrated at 100 V<sub>DC</sub>. Calibration at other voltages available upon request
- (3) Contact factory for tighter tolerances
- (4) Reference only: not for all values specified. Consult factory for your value

## VOLTAGE AND TEMPERATURE COEFFICIENTS OF RESISTANCE CHART TYPICAL

RESISTANCE ( $\Omega$ )	RATIO (MAXIMUM)	VCR (ppm/V)	TCR (ppm/°C) -55 °C to +155 °C
10K to 100K	200:1	10	150
> 100K to 1M	400:1	10	100
> 1M	700:1	10	100

## Note

- Contact factory for other ratios

## GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CDMVAF20K0J1000GEB (preferred part number format)

GLOBAL MODEL	TERM STYLE	TERM MATERIAL	RESISTANCE VALUE ( $R_1$ )	TOLERANCE	RATIO ( $R_1 + R_2$ ) / $R_2$	RATIO TOLERANCE	SOLDER TERMINATION	PACKAGING
CDMV = CDMV2512	A = 3-sided	F = nickel barrier	K = k $\Omega$ M = M $\Omega$ 20K0 = 20 k $\Omega$ 800K = 800 k $\Omega$ 1M00 = 1 M $\Omega$	D = $\pm 0.5 \%$ F = $\pm 1 \%$ G = $\pm 2 \%$ J = $\pm 5 \%$ K = $\pm 10 \%$	3 digit significant figure, followed by a multiplier 0500 = 50:1 1000 = 100:1 2000 = 200:1	D = $\pm 0.5 \%$ F = $\pm 1 \%$ G = $\pm 2 \%$ H = $\pm 3 \%$ J = $\pm 5 \%$	E = Sn100 T = Sn90 / Pb10	B = bulk (250 pcs max.) F = T / R (full reel) 1 = T / R (1000 pcs) 5 = T / R (500 pcs) T = T / R (250 pcs min.) W = waffle tray

## Note

- For additional information on packaging, refer to the "Surface Mount Resistor Packaging" document ([www.vishay.com/doc?31543](http://www.vishay.com/doc?31543))

**MATERIAL SPECIFICATIONS**

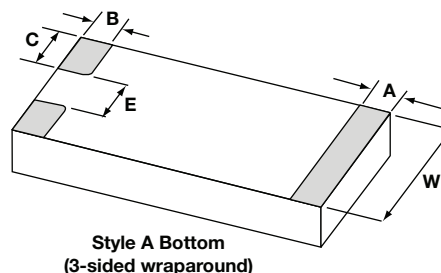
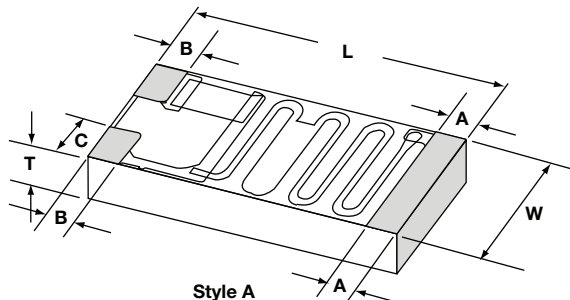
Resistive element	Ruthenium oxide
Encapsulation	Epoxy
Substrate	96 % alumina
Termination	Solder-coated nickel barrier terminations
Solder finish	Pure tin or tin / lead solder alloys standard

**ENVIRONMENTAL SPECIFICATIONS**

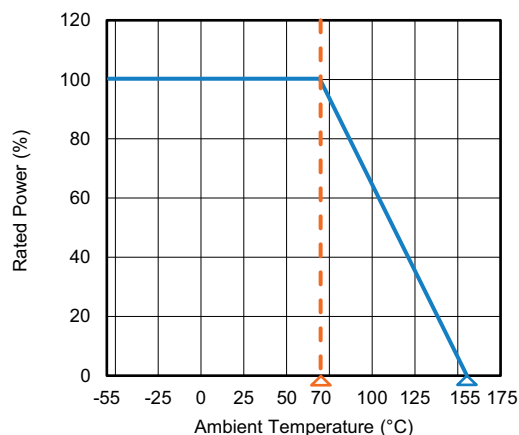
Operating temperature	-55 °C to +155 °C
Life	Less than 0.5 % change when tested at full rated power

**Note**

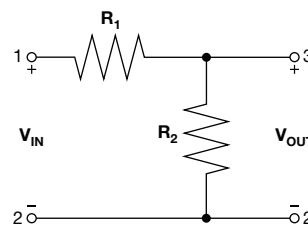
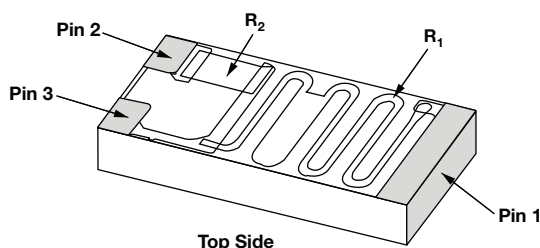
- Reference only: not for all values specified. Consult factory for your size and value

**DIMENSIONS** in inches (millimeters)


TERMINATION	LENGTH (L) ± 0.006 (0.152)	WIDTH (W) ± 0.006 (0.152)	THICKNESS (T) ± 0.005 (0.127)	A ± 0.005	B ± 0.005	C ± 0.005	E ± 0.010
Style A (3-sided wraparound)	0.250	0.126	0.025	0.025	0.025	0.040	0.046

**DERATING CURVE**

**Note**

- Reference only: not for all values specified. Consult factory for your specific value

**SCHEMATIC**




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