

Thick Film Chip Dividers, High Voltage



KEY BENEFITS

- High-voltage capability to 3000 Volts
- Small physical size (2512 case size)
- Outstanding ratio stability: < 0.3 % at 70 °C at 2000 hours, full power
- Standard and custom ratio values covering multiple ratio dividers: 10:1 to 500:1

APPLICATIONS

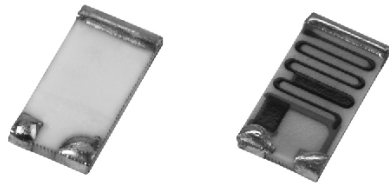
- High-voltage power supplies
- Inverters
- Regulators
- High-voltage control circuits

RESOURCES

- Datasheet: CDHV - <http://www.vishay.com/doc?68020>
- For technical questions contact te1resistors@vishay.com



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FEATURES

- High voltage up to 3000 V
- Typical resistance ratios of 250:1, 500:1, etc.
- Flow solderable
- Tape and reel packaging available
- Available with either wraparound terminations or as a single termination flip chip
- Suitable for solderable, epoxy bondable, or wire bondable applications
- Termination: Gold, palladium silver, platinum gold, platinum silver, platinum palladium gold or solder-coated nickel barrier available
- Multiple styles, termination materials and configurations, allow wide design flexibility
- Non-magnetic terminations available
- Compliant to RoHS Directive 2011/65/EU
- Halogen-free according to IEC 61249-2-21 definition



RoHS*
COMPLIANT
HALOGEN
FREE

Note

* Pb containing terminations are not RoHS compliant, exemptions may apply

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	CASE SIZE	POWER RATING $P_{70^{\circ}\text{C}}$ W	MAXIMUM WORKING VOLTAGE (1) V	RESISTANCE RANGE (2) Ω	TOLERANCE (3) $\pm \%$	TEMPERATURE COEFFICIENT (4) (- 55 °C to + 150 °C) $\pm \text{ppm}/^{\circ}\text{C}$	TCR TRACKING $\pm \text{ppm}/^{\circ}\text{C}$
CDHV 2512	2512	Contact factory	3000	20M to 20G	1, 2, 5, 10, 20	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_{DC}. Calibration at other voltages available upon request. Contact factory for lower values.
- (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 (Ω)	RATIO (TYPICAL)	VCR (ppm/V)	TCR (ppm/°C) - 55 °C to + 150 °C
20M	250:1	10	100
150M	300:1	10	150
800M	500:1	10	200

Note

- Contact factory for other ratios.

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: CDHVAF20M0J2500GFB (preferred part number format)

GLOBAL MODEL	TERM STYLE	TERM MATERIAL	RESISTANCE VALUE (R1)	TOLERANCE	RATIO R1/R2	RATIO TOLERANCE	SOLDER TERMINATION	PACKAGING
CDHV = CDHV2512	A = 3-sided B = Top only	F = Nickel barrier A = Palladium silver B = Platinum gold C = Gold D = Platinum silver E = Platinum palladium gold	M = M Ω G = G Ω 20M0 = 20 M Ω 800M = 800 M Ω 1G00 = 1 G Ω	F = $\pm 1 \%$ G = $\pm 2 \%$ J = $\pm 5 \%$ K = $\pm 10 \%$ M = $\pm 20 \%$	3 digit significant figure, followed by a multiplier 2500 = 250:1 3000 = 300:1 5000 = 500:1	G = $\pm 2 \%$ H = $\pm 3 \%$ J = $\pm 5 \%$	D = Sn95/Ag5, HSD E = Sn100 F = Sn95/Ag5 N = No solder S = Sn62/Pb36/Ag2, HSD T = Sn90/Pb10	B = Bulk F = T/R (full reel) 1 = T/R (1000 pcs) 5 = T/R (500 pcs) T = T/R (250 pcs min.) W = Waffle

Historical Part Numbering: CDHV2512AF2005J2500Ge2 (will continue to be accepted)

HISTORICAL MODEL	TERM STYLE	TERM MATERIAL	RESISTANCE VALUE (R1)	TOLERANCE	RATIO R1/R2	RATIO TOLERANCE	SOLDER TERMINATION
CDHV2512	A	F	2005	J	2500	G	e2

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