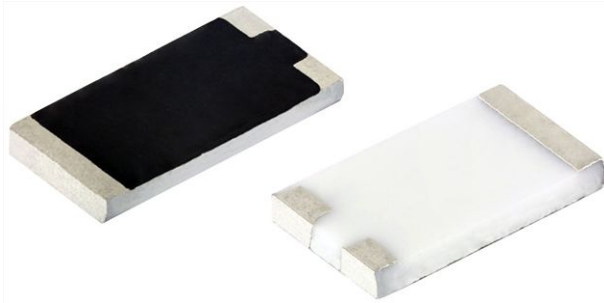


Thick Film Chip Dividers, Medium Voltage



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 or single termination flip chip available
- Suitable for solderable, epoxy bondable, or wire bondable applications
- Termination material: solder-coated nickel barrier terminations standard; gold, palladium silver, platinum gold, platinum silver, or platinum palladium gold terminations available
- Multiple styles, termination materials, and configurations, allow wide design flexibility
- Epoxy bondable or wire bondable terminations available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



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 ⁽¹⁾ V	RESISTANCE RANGE ⁽²⁾ Ω	TOLERANCE ⁽³⁾ \pm %	TEMPERATURE COEFFICIENT ⁽⁴⁾ (-55 °C to +155 °C) \pm ppm/°C	TCR TRACKING \pm ppm/°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_{DC}. 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 (Ω)	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)

C D M V A F 2 0 K 0 J 1 0 0 0 G E B

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 B = top only	F = nickel barrier A = palladium silver B = platinum gold C = gold D = platinum silver E = platinum palladium gold	K = k Ω M = M Ω 20K0 = 20 k Ω 800K = 800 k Ω 1M00 = 1 M Ω	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 N = no solder 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

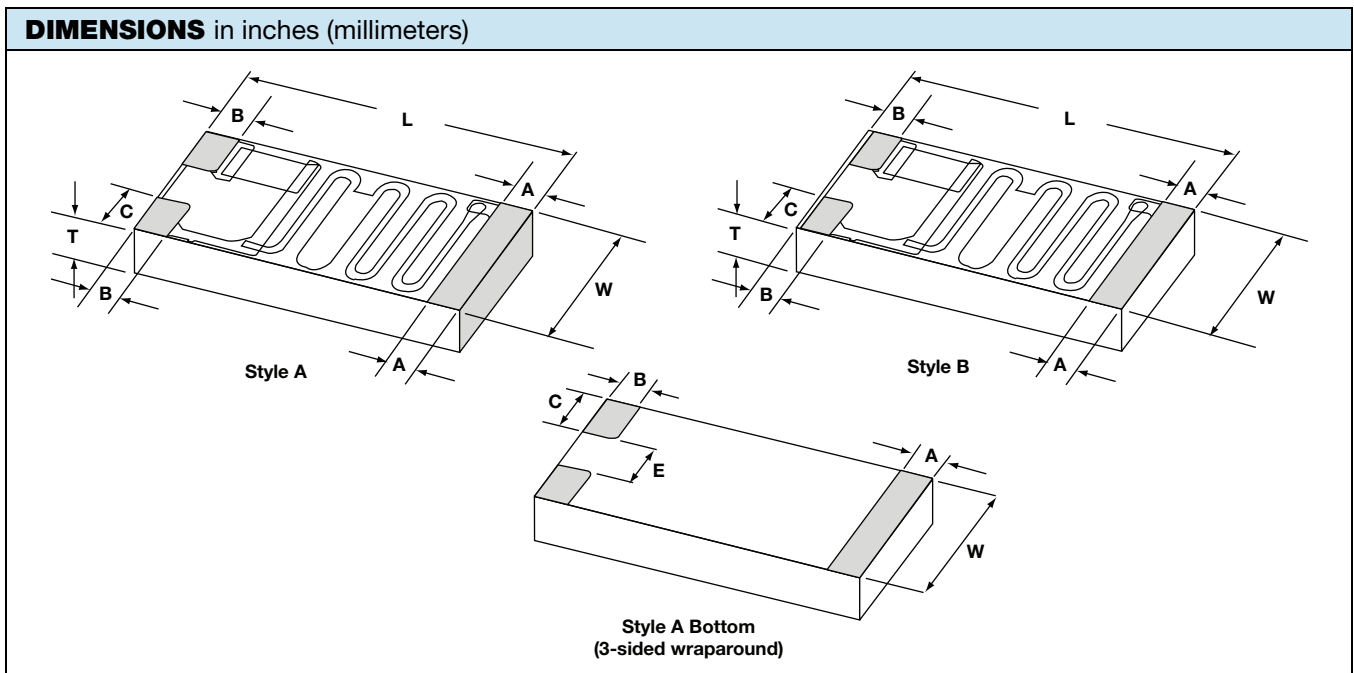
- For additional information on packaging, refer to the "Surface Mount Resistor Packaging" document (www.vishay.com/doc?31543)

MATERIAL SPECIFICATIONS	
Resistive element	Ruthenium oxide
Encapsulation	Epoxy
Substrate	96 % alumina
Termination	Solder-coated nickel barrier terminations standard. Gold, palladium silver, platinum gold, platinum silver, platinum palladium gold terminations available.
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

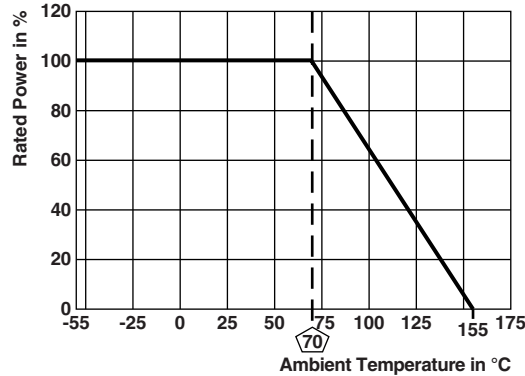
Note

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



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
Style B (top only)	0.240	0.126	0.025	0.025	0.025	0.040	-

DERATING CURVE

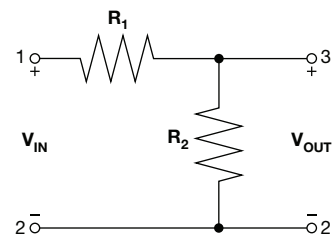
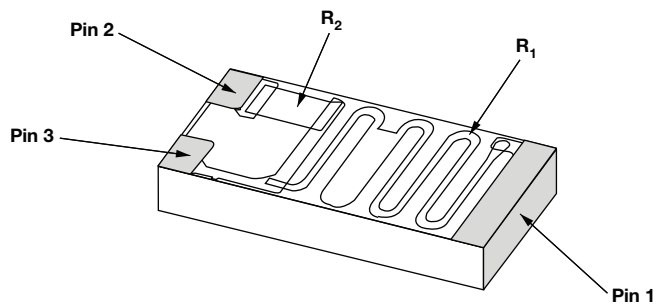


Note

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

TYPE	TERMINATION MATERIAL	TERMINATION STYLE	TERMINATION STYLE / MATERIAL CODE	SOLDER TERMINATION CODE
Solderable	Nickel barrier	3-sided (wraparound)	AF	E or T
		Top only (flip chip)	BF	
Epoxy bondable / solderable	Platinum palladium gold	Top only (flip chip)	BE	N
Wire bondable / epoxy bondable	Gold	Top only (flip chip)	BC	N
Epoxy bondable	Palladium silver	Top only (flip chip)	BA	N
	Platinum gold		BB	
	Platinum silver		BD	

SCHEMATIC





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