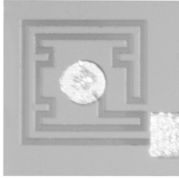


Miniature Back-Contact Resistor Chip

CHIP RESISTORS



Product may not be to scale

The BCM series are the smallest single value chips available from Vishay EFI. One wire bond only, they are intended for loose tolerance commercial applications.

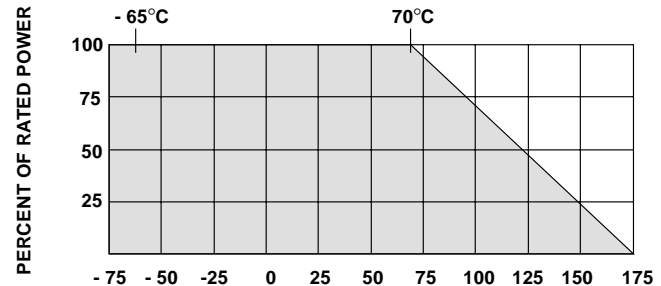
The BCMs are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology. The BCMs are 100% electrically tested and visually inspected to Vishay EFI's commercial criteria.

FEATURES

- Only one wire bound required
- Small size: 0.015 inches square
- Single top contact
- Resistance range: 100Ω to 100kΩ (See Standard RETMA Chart)
- Tolerance: ± 10%, ± 20%, ± 25%, ± 50%
- Packaging: Matrix tray

STANDARD VALUE RETMA CHART

TOLERANCE		
± 10%		± 20%
10	33	10
12	39	15
15	47	22
18	56	33
22	68	47
27	82	68

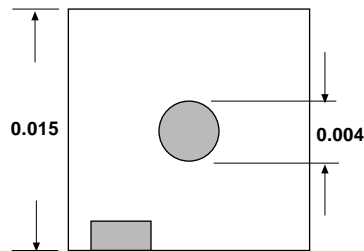
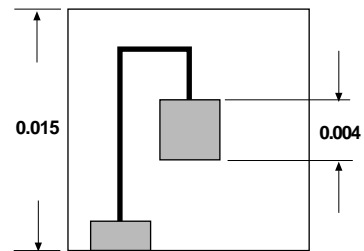


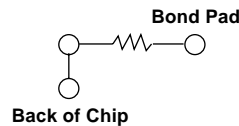
DERATING CURVE

STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	
TCR	± 250ppm/°C
Noise, MIL-STD-202, Method 308	- 20dB typical
Moisture resistance, MIL-STD-202 Method 106	± 0.5% maximum ΔR/R
Stability, 1000 hours, ± 125°C, 50mW	± 1.0% maximum ΔR/R
Thermal shock, MIL-STD-202, Method 107, Test condition F	± 0.5% maximum ΔR/R
High temperature exposure, + 150°C, 100 hours	± 0.25% maximum ΔR/R
Insulation resistance (open resistor)	10 ¹² minimum
Operating voltage	100V maximum
Power rating at + 70°C (See Derating Curve)	100mW
5 x rated power short-time overload, + 25°C, 5 seconds	± 0.5% maximum ΔR/R

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CONFIGURATIONS in inches

TYPICAL RANGE
821Ω - 100KΩ

TYPICAL RANGE
100Ω - 820Ω

SCHEMATIC


MECHANICAL SPECIFICATIONS in inches	
PARAMETER	
Chip size	0.015 x 0.015 ± 0.002 (0.381 x 0.381 ± 0.05mm)
Chip thickness	0.008 ± 0.003 (0.203 ± 0.08mm)
Chip substrate material	Silicon
Resistor material	Tantalum nitride, self-passivating
Bonding pad size	0.0038 square minimum - 0.004 square typical
Number of pads	1 top
Pad material	Aluminum, 10kÅ thick
Backing	3kÅ minimum gold

ORDERING INFORMATION						
Example: 100% visualled, 100kΩ, ± 10%, ± 250ppm/°C TCR, Aluminum Pads, Commercial Inspection.						
P/N:	W	BCM	000	1000	2	K
	INSPECTION	PRODUCT	PROCESS	RESISTANCE	MULTIPLIER	TOLERANCE
	/PACKAGING	FAMILY	CODE	VALUE	CODE	CODE
	W = 100% visually inspected parts in matrix trays per MIL-STD-883		See Process Code table	Use first 4 significant digits of resistance	B = 0.01 A = 0.1 0 = 1 1 = 10 2 = 100	K = 10% M = 20% L = 25% N = 50%
	X = Sample, visually inspected loaded in matrix trays (4% AQL)					