

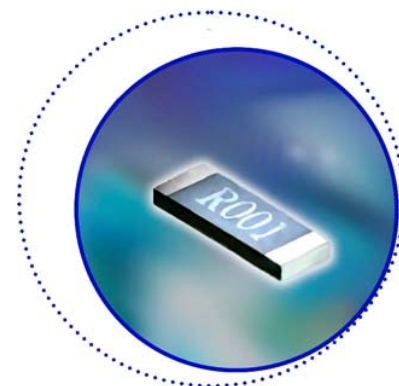
8W CURRENT DETECT CHIP RESISTORS

Features

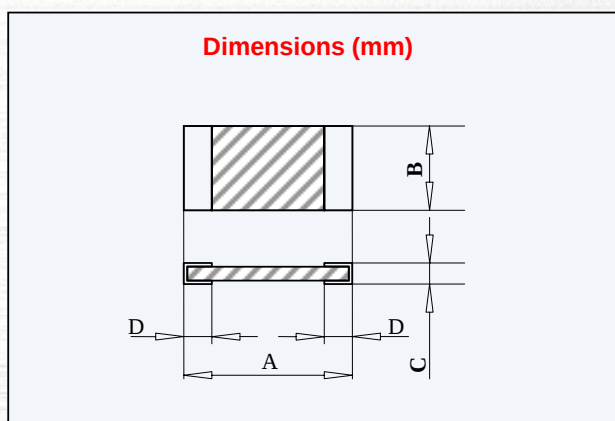
- Non inductive design.
- Low TCR, typically less than 30ppm/°C.
- Low profile surface mount package.
- Excellent pulse/surge performance.
- 8W power rating.

Applications

- Current sense applications
- Over current protection in Battery chargers.
- Servo motor control circuits.
- DC-DC, DC-AC and intelligent power modules.
- Industrial PC modules (IPM) and precision measurement systems.
- Current detection circuits in high-speed CPU peripherals.



Specifications and Performances



Type	BCS8 (mm)
A	12.8+/-0.5
B	6.4max
C	2.5max
D	1.3

Marking

Marking is done by 3 digits resistance value notation and tolerance code F (1%).

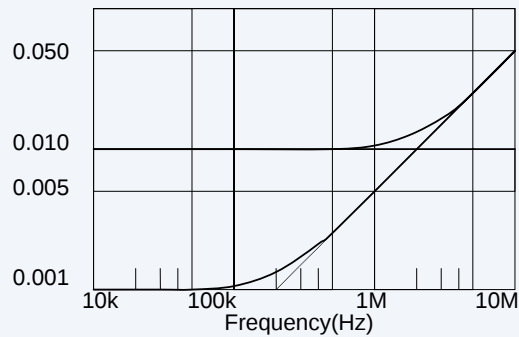
R001F

Specification and Performances

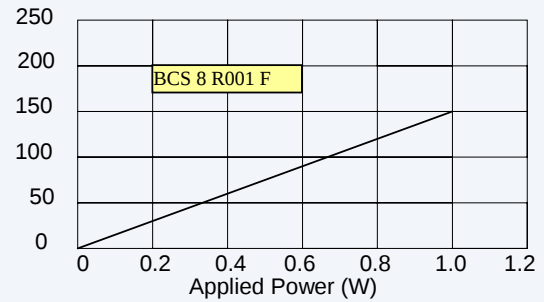
	BCS8	Remarks
Resistance	0.5m, 1m, 2m, 3m, 4m, 5m Ω	
TCR	+/-50ppm/°C	Measured +/- 30ppm/ °C
Tolerance	+/-1.0% (F), +/-5.0% (J)	
Rating Power	8W	Attached to 70 micron PCB
Rating Current	90A	At 1m Ω
Maximum Current	126A	2.5 seconds one time
Series Inductance	5nH	
Operating Temp.	-55 C to 175 °C	
Storage Temp.	-55 C to 175 °C	

	Specifications	Conditions
Short Time Overload	+/-0.5%+0.5m Ω	maximum current, 2.5seconds.
Low Temperature Storage	+/- (0.5%+0.5m Ω)	-55C, 24hours
High Temperature Storage	+/- (1.0%+0.5m Ω)	+175C, 1000hours
Heat Shock	+/- (0.5%+0.5m Ω)	-55C to +125C, 20min. interval, 5min. 5cycles
Vibration	+/- (0.5%+0.5m Ω)	10-2000Hz, 1.5mm/20gr, 2hours
Soldering Heat	+/- (0.25%+0.5m Ω)	260°C +/- 5°C, 10 +/- 1 seconds.
Solder ability	90%/terminal surface	
Humidity	+/- (0.5%+0.1m Ω)	85°C, 85%RH, dc0.1W, 1000 hours
Load Life	+/- (0.5%+0.1m Ω)	25°C, dc rated power, 90min ON, 30min OFF, 1000hours

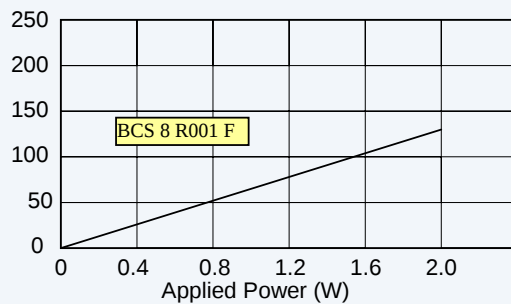
Frequency Characteristics

Impedance(Ω)

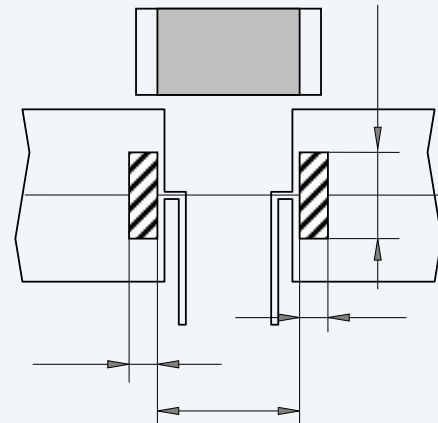
Temperature Rise

Temperature ($^{\circ}\text{C}$) at hot spot.

Temperature Rise

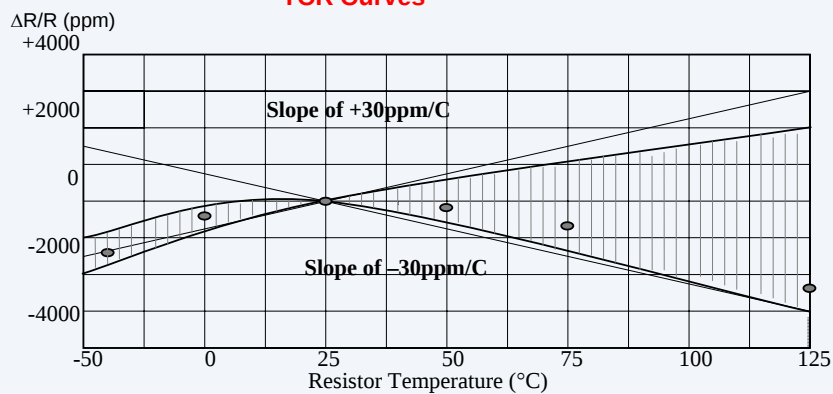
Temperature ($^{\circ}\text{C}$) at hot spot.

Recommended Foot Print (mm)



TCR Curves

Dotted line: typical measurement



Soldering Recommendation

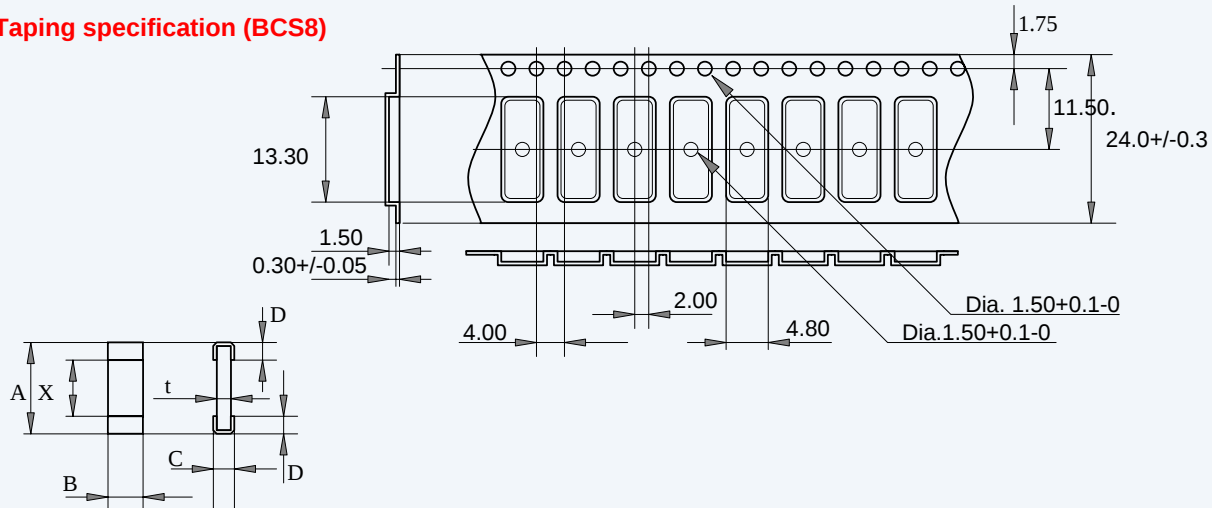
Due to the enhanced heat dissipation properties of the BCS8, the temperature profile during reflow soldering will need to be increased by: 10 to 20 $^{\circ}\text{C}$.

Custom designs

Alternative widths and lengths are available, please contact factory for details.

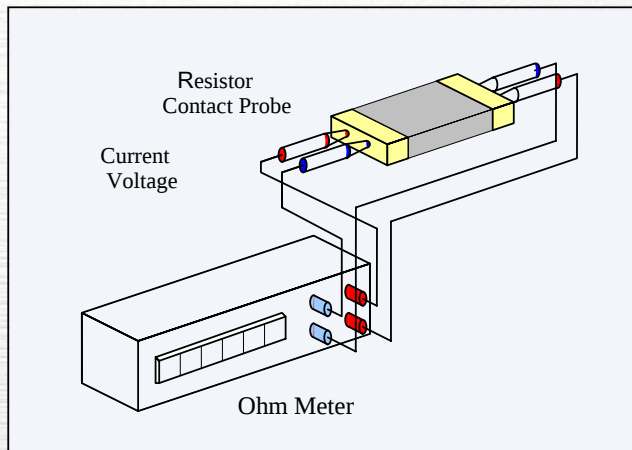
BCS 8

Taping specification (BCS8)



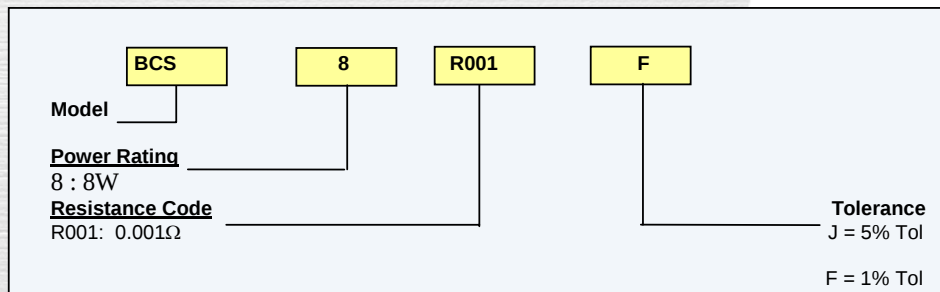
P/N	A/NA	A	B	C	D	X	t
BCS8 R001F	A	12.8	4.0	1.14	1.4	10.0	1.0
BCS8 R002F	A	12.8	4.0	0.64	1.4	10.0	0.5
BCS8 R003F	A	12.8	2.7	0.64	1.4	10.0	0.5
BCS8 R003F	A	12.8	4.5	0.44	1.4	10.0	0.3
BCS8 R004F	NA	12.8	5.3	0.34	1.4	10.0	0.2
BCS8 R005F	A	12.8	4.4	0.34	1.4	10.0	0.2

Note : Above dimensions are approximate.



Resistance testing the BCS resistors is done at the side positions of resistor terminals (see figure) using a 4 - port measuring system. For a stated resistance tolerance of +/-1.0%, the measured values should be within the +/-0.8% factory tested values. When surface mount resistor is attached on circuit board, small resistance changes will occur, Custom designs are available, please call the factory.

Ordering Information



BCS 8