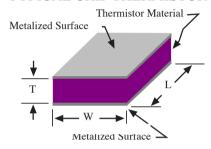
# BetaCHIP Leadless Chip Thermistor

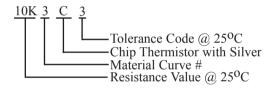
# Silver Terminations (Contacts)



#### TYPICAL CHIP THERMISTOR



<u>Example: Silver Terminated Leadless BetaCHIP</u>
<u>Part Number</u>



# BetaCHIP Leadless Chip Thermistors:

### **Applications:**

- Automotive temperature controls.
- Surface mounting on hybrid circuits.
- Temperature compensation of crystal oscillators.

#### **Features:**

- Rapid Time Response (< 1 second typical in liquids).
- Standards supplied with 5% and 10% tolerance.
- 1% and 2% available upon request.
- Surface Mount Capability.
- 1 mW/<sup>0</sup>C Dissipation Constant in air at 25<sup>o</sup>C.
- Uniformly Sized for Pick & Place Assembly.

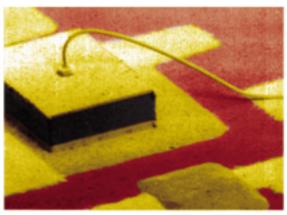
## Silver Metalized BetaCHIP Thermistors:

An economical alternative to the gold leadless *BetaCHIP* thermistors is the **Silver** terminated leadless *BetaCHIP* thermistors. These elements are manufactured using the same high quality materials as our other thermistor products. The nominal dimensions remain the same for both gold and silver chips. Custom sizes are also manufactured for customer specific applications. Silver chip elements are supplied in vials, "gel" or "waffle" packs.

Silver metalized chips may be soldered or conductive epoxied to board termination points. The use of solder containing a small quantity of silver is recommended such as 62%Sn (tin), 36%Pb (lead) and 2%Ag (silver).

# Silver Terminated Leadless BetaCHIP Thermistor Part Numbers and Specifications:

Part Number for	Part Number for	Resistance @	Alpha @	0/50 °C	Curve #	Nominal Chip Dimensions (mm)			Nominal Chip Dimensions (in)		
+/- 5% @ 25 °C	+/- 10% @ 25°C	25 °C (ohms)	25 °C	Beta Value		L	$\mathbf{W}$	T	L	$\mathbf{W}$	T
0.1K1C3	0.1K1C2	100	-3.50%	3108	1	1.397	1.397	0.305	0.055	0.055	0.012
0.3K1C3	0.3K1C2	300	-3.50%	3108	1	0.914	0.914	0.381	0.036	0.036	0.015
1K2C3	1K2C2	1000	-3.68%	3263	2	0.762	0.762	0.381	0.030	0.030	0.015
1K7C3	1K7C2	1000	-3.87%	3422	7	1.067	1.067	0.381	0.042	0.042	0.015
2.2K3C3	2.2K3C2	2252	-4.39%	3892	3	1.905	1.905	0.254	0.075	0.075	0.010
3K3C3	3K3C2	3000	-4.39%	3892	3	1.651	1.651	0.254	0.065	0.065	0.010
5K3C3	5K3C2	5000	-4.39%	3892	3	1.397	1.397	0.305	0.055	0.055	0.012
10K3C3	10K3C2	10000	-4.39%	3892	3	1.016	1.016	0.305	0.040	0.040	0.012
10K4C3	10K4C2	10000	-4.04%	3575	4	1.143	1.143	0.254	0.045	0.045	0.010
30K5C3	30K5C2	30000	-4.30%	3811	5	0.889	0.889	0.381	0.035	0.035	0.015
30K6C3	30K6C2	30000	-4.68%	4143	6	1.397	1.397	0.305	0.055	0.055	0.012
50K6C3	50K6C2	50000	-4.68%	4143	6	1.143	1.143	0.381	0.045	0.045	0.015
100K6C3	100K6C2	100000	-4.68%	4143	6	0.889	0.889	0.381	0.035	0.035	0.015
1M9C3	1M9C2	1000000	-5.20%	4582	9	0.889	0.889	0.254	0.035	0.035	0.010



SEM Photo 30x Hybrid Thermistor Chip

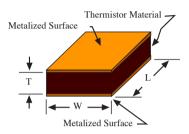
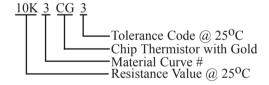


Figure # 1

### Sample Part Number:



# Gold Termination BetaCHIP Thermistors:

### **Applications**

- WDM (Wavelength Division Multiplexing) for advanced frequency control modern in communications systems and wireless applications.
- Thermopile sensors for thermal radiation recognition and infrared sensing.
- Thermal protection of sensitive circuits.
- Hybrid circuit temperature compensation.
- Localized temperature sensing.

#### Features:

- Rapid Time Response (<1 second typical in liquids).
- Standards supplied with 5% and 10% tolerance.
- 1% and 2% available upon request.
- **Surface Mount Capability.**
- 1 mW/°C Dissipation Constant in air at 25°C.
- Uniformly Sized for Pick & Place Assembly.
- Higher precision tolerance available.
- Square and Rectangular Configurations.

BetaTHERM offer high reliability Gold terminated leadless BetaCHIP thermistors that meet today's hybrid microelectronics needs and are offered by BetaTHERM. With metalization on top and bottom surfaces, attachment to hybrid, IC or PC circuits is accomplished using industry standard die attach and wire bonding techniques. Chips may be soldered or conductive epoxied to board termination points where space is at a premium. Typical chip sizes (1mm x 1mm x 0.25mm thick) allow for accurate robotic placement. Gold BetaCHIP thermistors are supplied in "gel" or "waffle" packs.

# Gold Metalized BetaCHIP Thermistor Part Numbers and Specifications:

Part Number for	Part Number for	Resistance @	Alpha @	0/50 °C	Curve #	Nominal Chip Dimensions (mm)			Nominal Chip Dimensions (in)		
+/- 5% @ 25 °C	+/- 10% @ 25°C	25 °C (ohms)	25 °C	Beta Value		L	$\mathbf{W}$	T	L	$\mathbf{W}$	T
0.1K1CG3	0.1K1CG2	100	-3.50%	3108	1	1.397	1.397	0.305	0.055	0.055	0.012
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