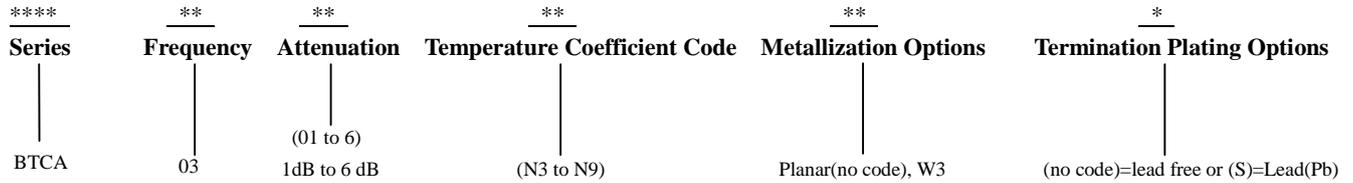


**Broadcast (CATV) Temperature Compensation Attenuator DC~3GHz 75Ω 2W 1~6dB N3~N9**
**Part No. Descriptions**


Part No.	Frequency Range (GHz)	Attenuation (dB)	Temperature Coefficient Code	Temperature Coefficient of Attenuation (dB/dB/°C)	Max. VSWR (:1) @1GHz@25°C	Max. Input Power (W)	Attenuation Accuracy (dB)
BTCA0601N*	DC-3	1	N3~N9	-0.003~ -0.009	1.2	2	±0.5
BTCA0602N*	DC-3	2	N3~N9	-0.003~ -0.009	1.2	2	±0.5
BTCA0603N*	DC-3	3	N3~N9	-0.003~ -0.009	1.2	2	±0.5
BTCA0604N*	DC-3	4	N3~N9	-0.003~ -0.009	1.2	2	±0.5
BTCA0605N*	DC-3	5	N3~N9	-0.003~ -0.009	1.2	2	±0.5
BTCA0606N*	DC-3	6	N3~N9	-0.003~ -0.009	1.2	2	±0.5

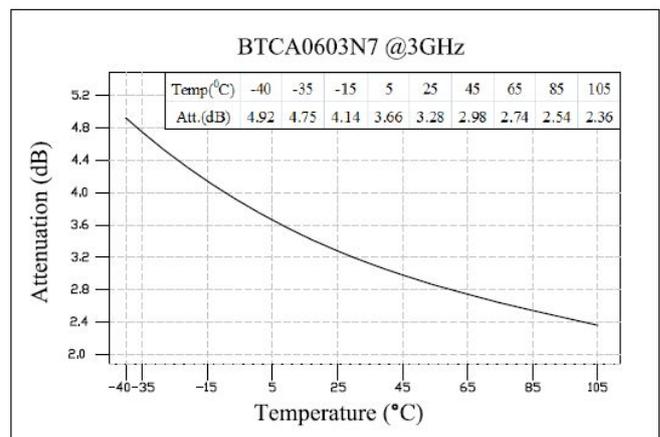
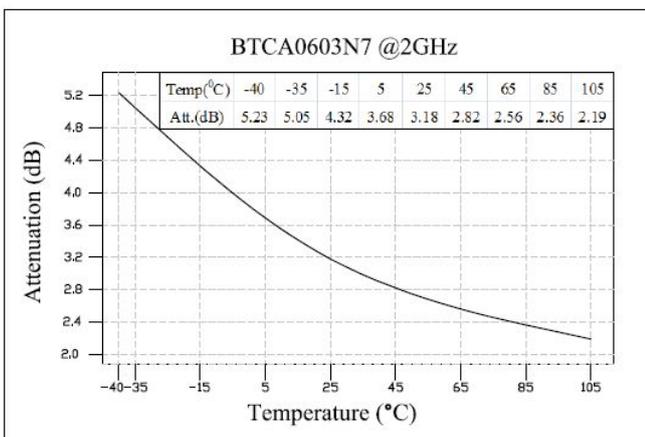
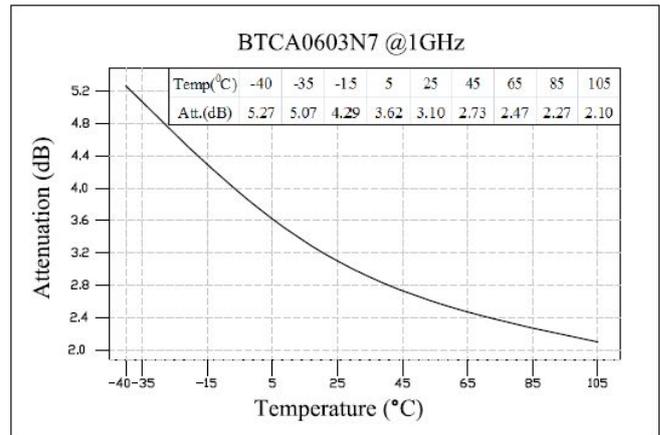
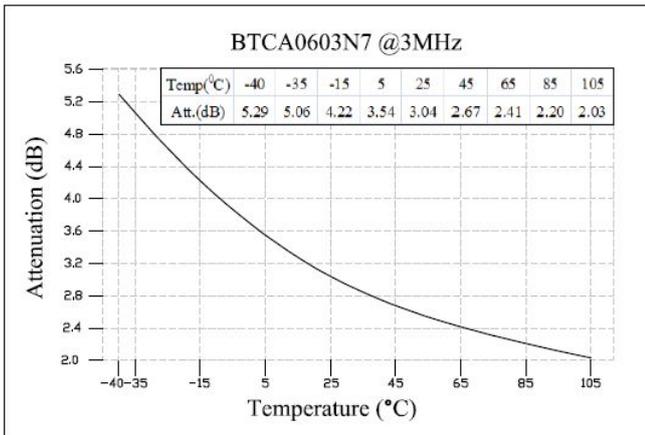
**General Specifications**

- Frequency Range DC to 3GHz
- Attenuation 3dB
- Attenuation Accuracy at 25°C ±0.5dB@1GHz
- VSWR 1.20:1 Max. @1GHz at 25°C
- Nominal Impedance 75Ohms
- Power Rating 2 Watts CW
- Power Derating 100% @ 125°C  
Derates to 0% @ 150°C
- Operating Temperature -55°C to +150°C
- Temperature Coefficient over Operating Temperature Range: See Table Above.  
Temperature Coefficient Tolerance: ±0.001dB/dB/°C.
- Substrate: Alumina (Al2O3)
- Resistive material: Thick film
- Terminal material: Thick film, Nickel barrier with pure tin plate (lead free) or with tin (Sn90) plate (10% lead contained)
- Protective Coating: Thick film (ethyl acetate)
- Package Outline: See Sheet 3.
- Workmanship: per MIL-PRF-55342.
- Electrostatic Discharge Control: per MIL-STD-1686.

**Unit Marking** dB Value (XX), Direction of Shift (N) and TCA Shift (X), Lead free (F).  
Legibility and Permanency: per MIL-STD-130.

**Quality Assurance**

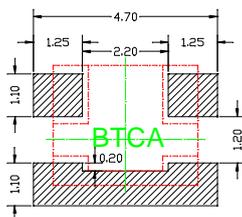
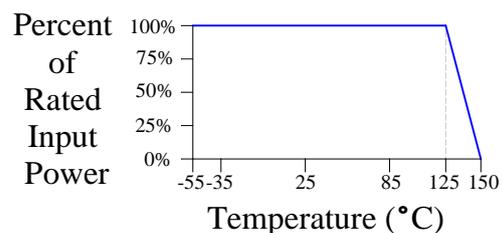
- Sample inspect per ANSI/ASQC Z1.4 general inspection, LEVEL II, AQL = 1.0.
  - 1.1 Visual and mechanical examination for conformance to outline package requirements.
- Select five (5) Units from lot measure attenuation from DC to 3GHz every 20°C over the temperature range -55°C to +125°C.
  - 2.1 Calculate, using linear regression, the slope of the curve.
  - 2.2 Calculate TCA using the following formula: TCA = Slope / Attenuation @ 25°C.
- Test data required for customer.

**BTCA Response**


Temp(°C) \ ATT(dB)	3MHz	1GHz	2GHz	3GHz
-40	5.29	5.27	5.23	4.92
-35	5.06	5.07	5.05	4.75
-15	4.22	4.29	4.32	4.14
5	3.54	3.62	3.68	3.66
25	3.07	3.10	3.18	3.28
45	2.67	2.73	2.82	2.98
65	2.41	2.47	2.56	2.74
85	2.20	2.27	2.36	2.54
105	2.03	2.10	2.19	2.36

**Recommended Layout**

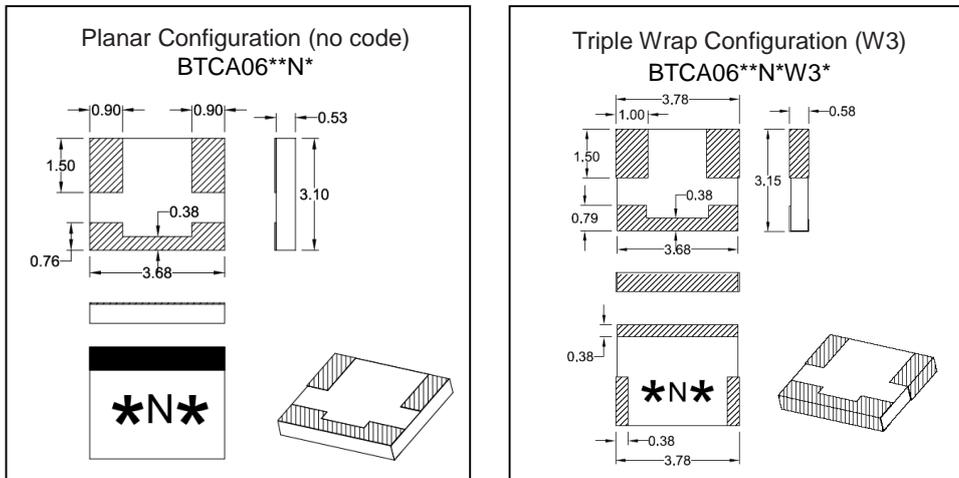
All dimensions shown in mm unless stated otherwise


**Power Rating & Derating Curve**


### Package Outlines

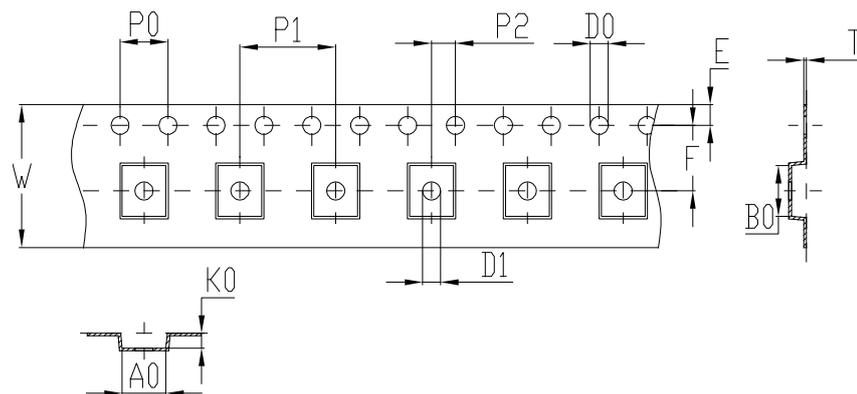
All dimensions shown in mm unless stated otherwise

Note: Dimension tolerance in  $\pm 0.10$  otherwise mention. \* represents number



### Tape & Reel Drawing

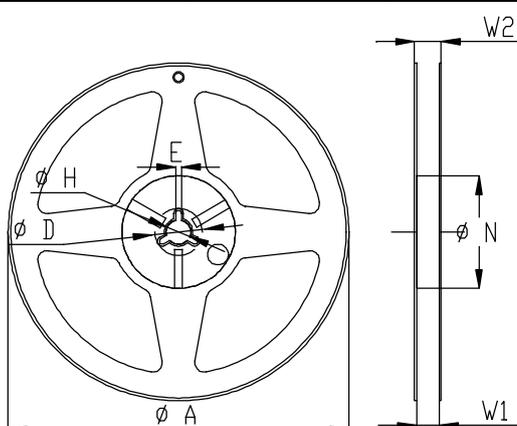
All dimensions shown in mm unless stated otherwise



Notice:

- A.10 Sprocket hole pitch cumulative tolerance is 0.2mm.
- B. Carrier camber shall be not more than 1mm per 100mm through a length of 250mm.
- C. All dimensions meet EIA-418-B requirements.
- D. A0 & B0 measured as indicated.
- E. K0 measured from a place on the inside bottom of the pocket to top surface of carrier.
- F. Material: PE 100
- G. Thickness:  $0.23 \pm 0.05$ mm
- H. 1500 units (maximum) / T&R

symbol	A0	B0	K0	P0	P1	P2
spec	$3.65 \pm 0.1$	$4.25 \pm 0.1$	$1.25 \pm 0.1$	$4.0 \pm 0.1$	$8.0 \pm 0.1$	$2.0 \pm 0.1$
symbol	W	T	E	F	D0	D1
spec	$12.0 \pm 0.3$	$0.23 \pm 0.05$	$1.75 \pm 0.1$	$5.5 \pm 0.1$	$\Phi 1.5^{+0.1}_{-0.0}$	$\Phi 1.5$ min



Symbol	Dimensions(mm)
A	$180^{+0/-3}$
N	$60^{+1/-0}$
W1	$12.0 \pm 0.3$
W2	$14 \pm 1.0$
D	$25 \pm 0.8$
H	$13 \pm 0.2$
E	$3 \pm 0.5$