Normal Mode for Signal Line, Through-Hole Type, SBT Series

Overview

The KEMET SBT coils are normal mode chokes with a wide variety of characteristics. These through-hole toroidal coils are designed with our proprietary ferrite cores and are suitable for noise countermeasure in DC signal line circuits.

Applications

- Audio-visual equipment
- Office automation equipment
- Digital appliances
- Home appliances
- Power supplies

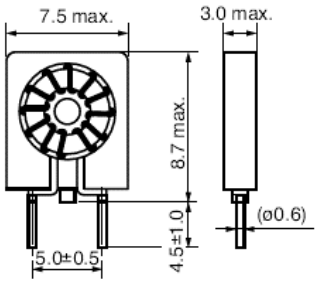
Benefits

- Proprietary Nickel-Zinc (Ni-Zn) ferrite core
- Operating temperature range from −25°C to +75°C
- RoHS Compliant

Part Number System

SBT-02	08	T
Series	Inductance Code (µH)	Packaging Type
SBT-02	08 = 8 µH 10 = 10 µH 40 = 40 µH 60 = 60 µH	Blank = Bulk T = Tape & Reel TF = Flat taping

Dimensions – Millimeters

Part Number	Dimensions - Millimeters
SBT-02**	

Environmental Compliance

All KEMET DC line filters are RoHS Compliant.

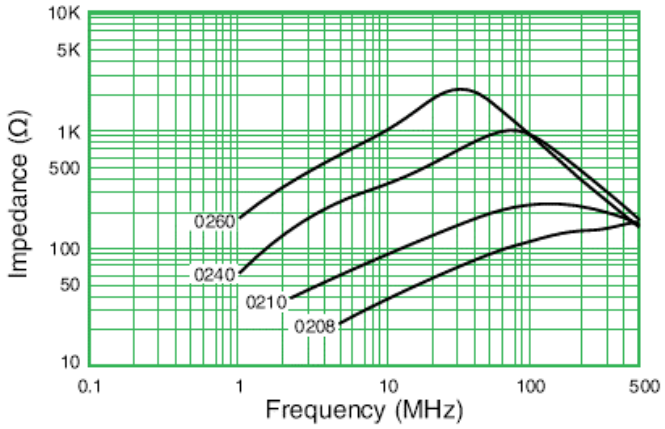
Performance Characteristics

Item	Performance Characteristics
Rated Voltage	50 VDC
Rated Current	500 mA
Rated Inductance Range	8 – 60 µH
Inductance Measurement Condition	1 kHz, 70 mA
Inductance Tolerance	±35% & ±50%
Rated DC Resistance Range	20 – 50 mΩ maximum
Operating Temperature	–25°C to +70°C (not including self-temperature rise)

Table 1 – Ratings & Part Number Reference

Part Number	Rated Voltage DC (V)	Rated Current (mA)	Inductance (µH)	DC Resistance/Line (mΩ) Maximum	Weight (g)
SBT-0208	50	500	8 ±50%	20	0.24
SBT-0208T	50	500	8 ±50%	20	0.24
SBT-0208TF	50	500	8 ±50%	20	0.24
SBT-0210	50	500	10 ±50%	20	0.24
SBT-0210T	50	500	10 ±50%	20	0.24
SBT-0210TF	50	500	10 ±50%	20	0.24
SBT-0240	50	500	40 ±35%	34	0.24
SBT-0240T	50	500	40 ±35%	34	0.24
SBT-0240TF	50	500	40 ±35%	34	0.24
SBT-0260	50	500	60 ±35%	50	0.26
SBT-0260T	50	500	60 ±35%	50	0.26
SBT-0260TF	50	500	60 ±35%	50	0.26

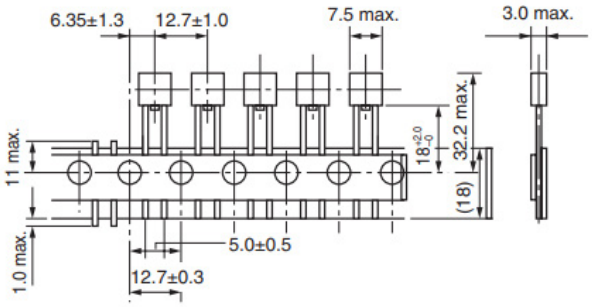
Frequency Characteristics



Packaging

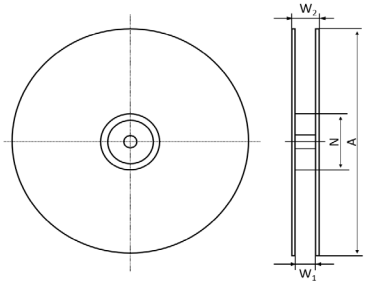
Part Type	Packaging Type	Pieces per Package	Pieces per Box
SBT-02**	Bulk	100	18,000
SBT-02**T	Tape & Reel	2,000	12,000
SBT-02**TF	Flat taping	1,000	10,000

Taping Specifications



Reel Specifications

Reel Dimensions - Millimeters



A	N	W_1 +1.0, -0.0	W_2 Maximum
360.0	140.0	44.0	50.2

Handling Precautions

Precautions for product storage

DC Line Filters should be stored in normal working environments. While the chokes themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity. Atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Do not store near strong magnetic fields, as this might magnetize the product.

For optimized solderability, DC line filter stock should be used promptly, preferably within six months of receipt.

Product temperature rise values

The values listed for temperature rise are the result of self-heating in wires when the rated current (commercial frequency) is applied. When using, check and evaluate the value of the core temperature rise under actual operating conditions.

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