

Low Loss, High Power Ferrite Beads



AFBC-SH0603P

Request Samples



Check Inventory



1.6 x 0.8 x 0.8/0.6 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Internal silver lithographic layers
- EMI suppression at High Frequencies
- Monolithic inorganic material construction
- DC resistance as low as 4mΩ
- Magnetically shielded

Applications

- Electronic control Units (ECUs)
- RF transceiver modules
- Antennas
- Infotainment system
- ADAS
- Industrial connectivity (IIoT)

Electrical Specifications

Part Number	Impedance (Typical)	DC Resistance	Rated Current	Package
Units	$\Omega \pm 25\%$	Ω Max.	mA Max.	Ref
Symbol	Z	R _{DC}	I _R	
AFBC-SH0603P-080	8.5	0.004	8000	A
AFBC-SH0603P-300	30	0.010	5000	B
AFBC-SH0603P-600	60	0.020	4000	B
AFBC-SH0603P-800	80	0.030	3000	B
AFBC-SH0603P-101	100	0.030	3000	B
AFBC-SH0603P-121	120	0.035	3000	B
AFBC-SH0603P-151	150	0.040	2500	B
AFBC-SH0603P-221	220	0.050	2300	B
AFBC-SH0603P-301	300	0.070	2200	B
AFBC-SH0603P-471	470	0.090	2000	B
AFBC-SH0603P-601	600	0.095	2000	B
AFBC-SH0603P-102	1000	0.150	1500	B

Test Conditions and Equipment

Z Test Frequency: 100MHz/60mV

DCR: High Accuracy LCR Meter – HP4263A

IR: Rated current applied when the chip surface temperature rise just 20°C against ambient temperature.

Operating Temperature: -55°C to +125°C (Including Self-Temperature rise)

Storage Temperature: -10°C to +40°C and RH 60% (Max).

AFBC-SH0603P is RoHS Compliant and Pb free

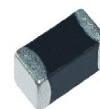


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4/15/2026

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Part Identification

AFBC-SH0603P -

Impedance Code

See Electrical Specification table

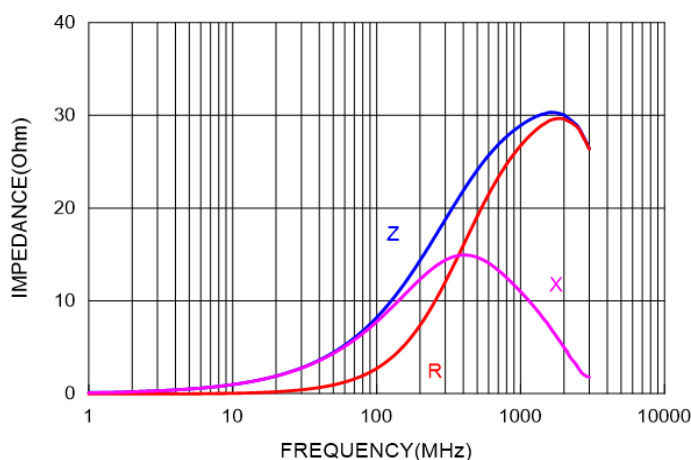
Packaging (See Packaging)

T: Tape and Reel

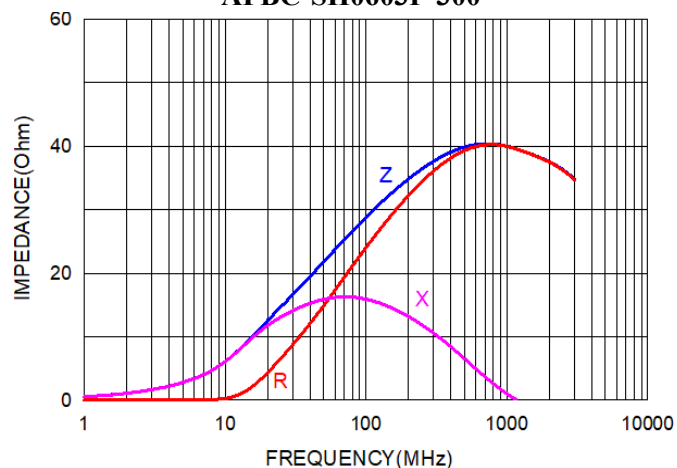
Blank: Bulk

Performance Graphs

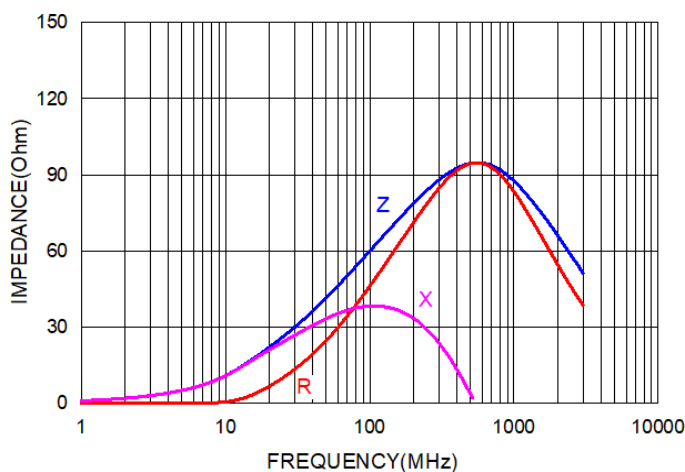
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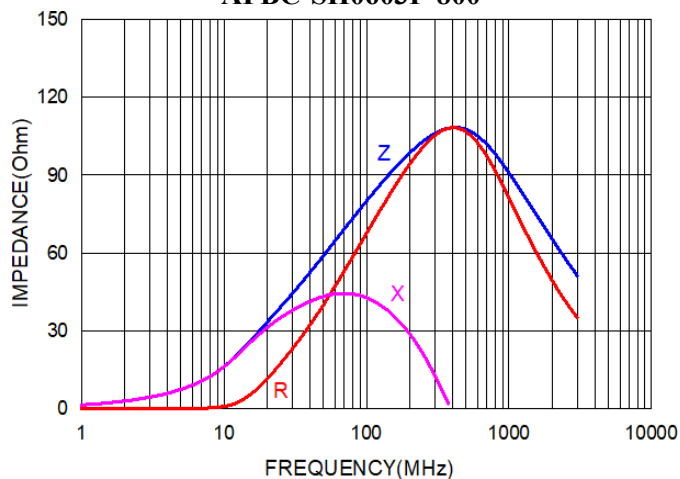
AFBC-SH0603P-300



AFBC-SH0603P-600



AFBC-SH0603P-800



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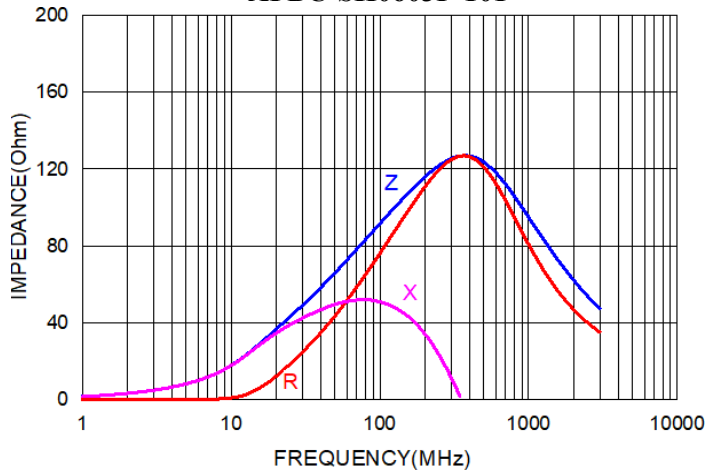


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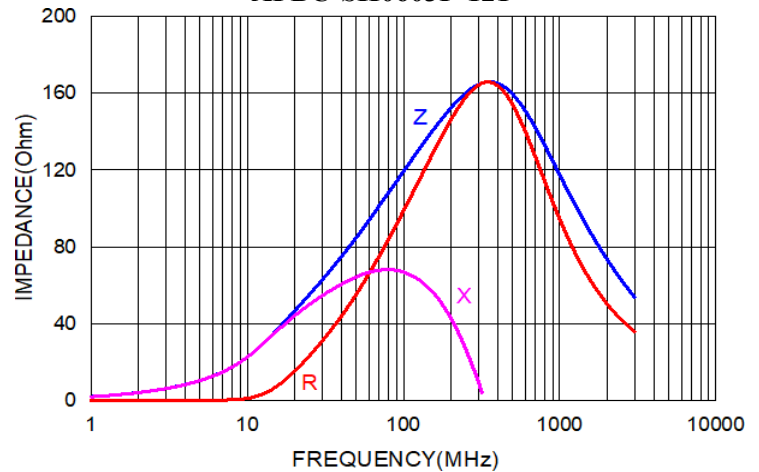


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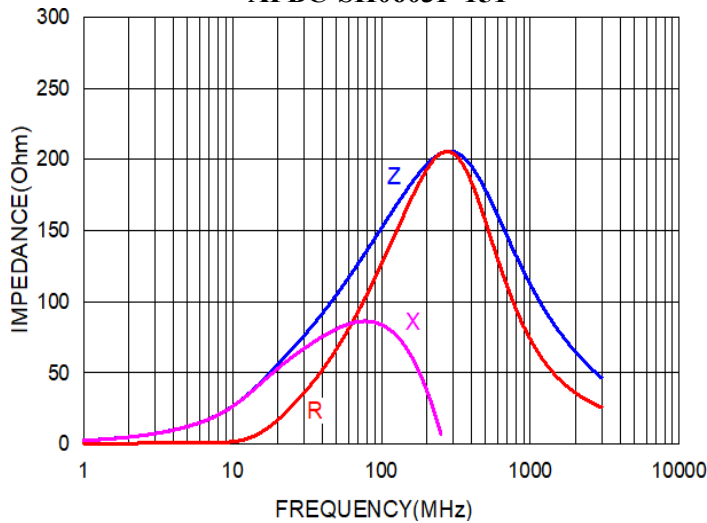
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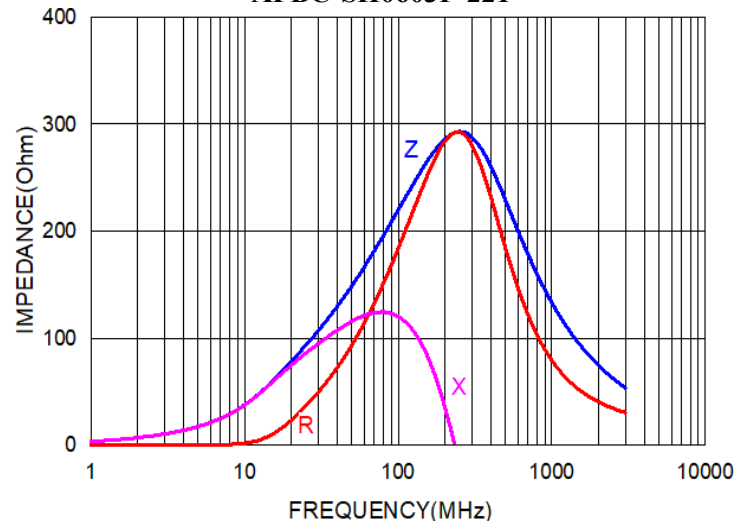
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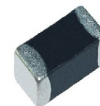
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AFBC-SH0603P-221



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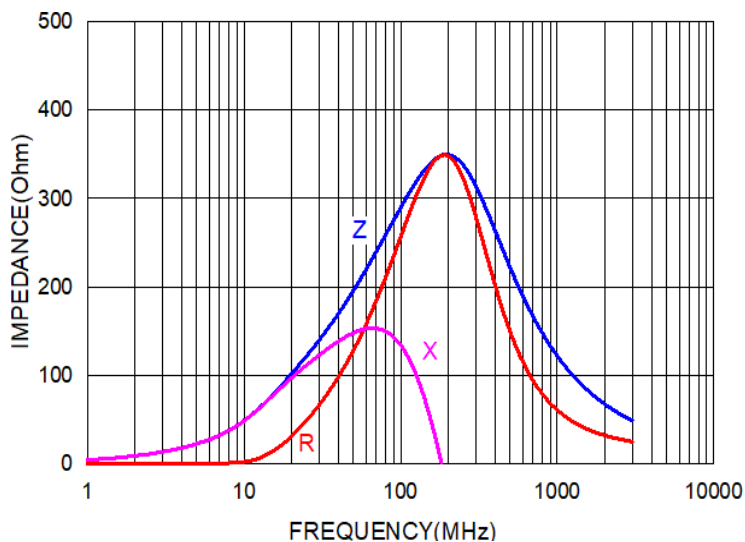


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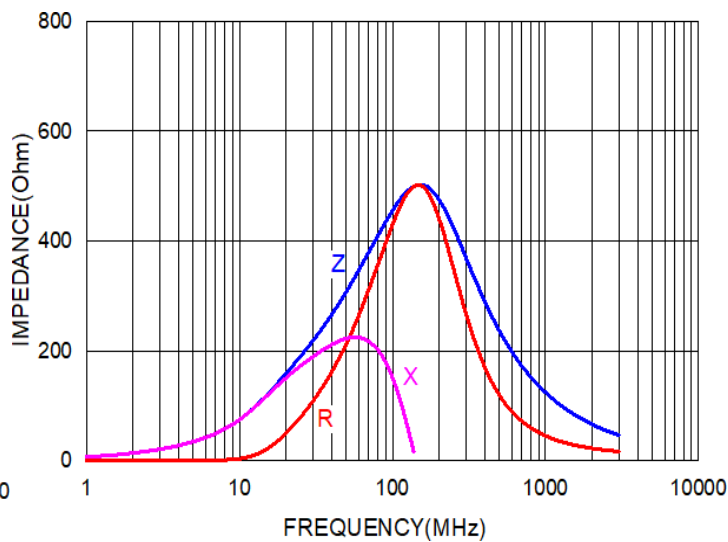


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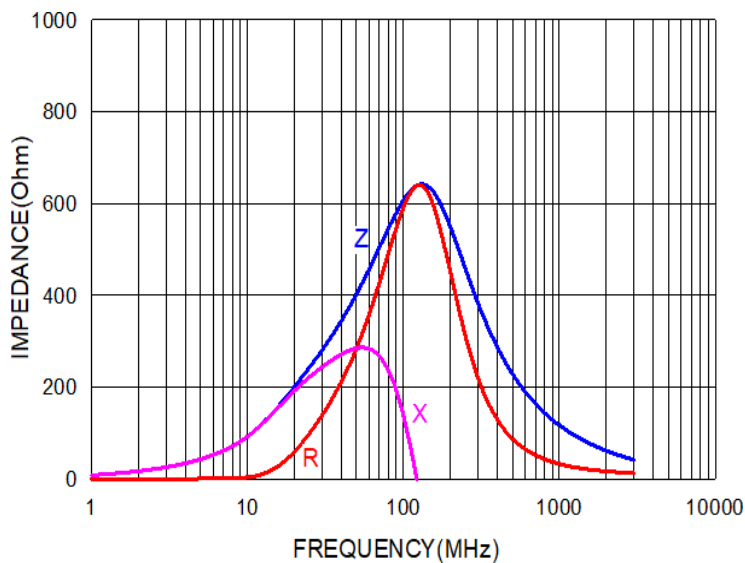
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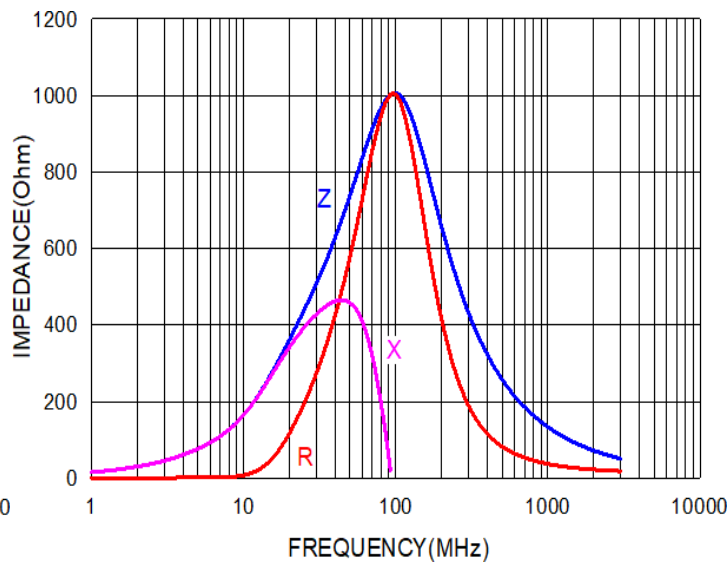
AFBC-SH0603P-471



AFBC-SH0603P-601



AFBC-SH0402-102



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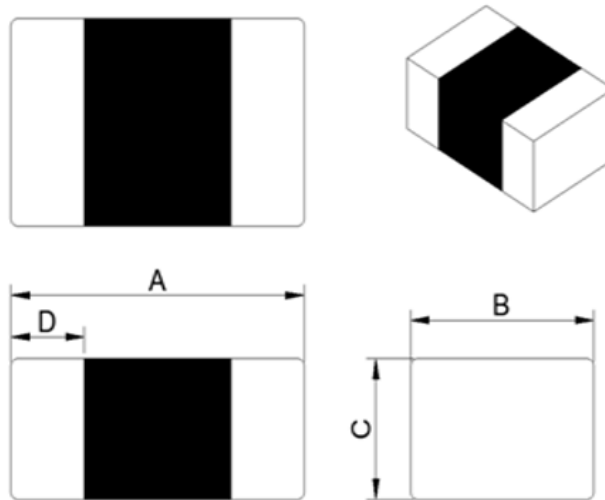


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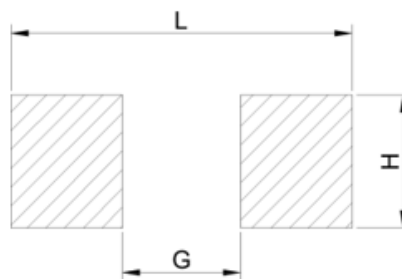
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MSL Level = 1

Mechanical Specifications



Package	A	B	C	D
A	1.60±0.15	0.80±0.15	0.60±0.15	0.30±0.20
B	1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20

Dimensions: mm

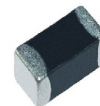


Recommended PCB Layout

Package	L	G	H
A	2.00 Ref	0.70 Ref	0.70 Ref
B	1.40 Ref	0.40 Ref	0.60 Ref

Dimensions: mm

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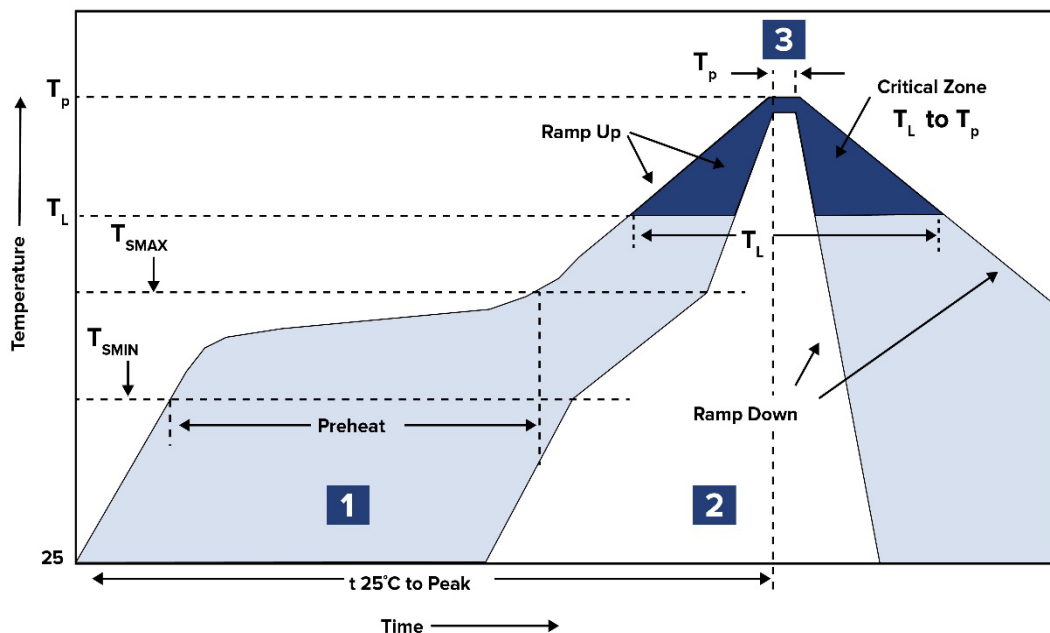


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Reflow Profile

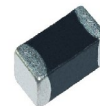


Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 260°C $\pm$ 5°C	30 sec. MAX

Ramp up: T_L to T_P = 3°C/s Max.

Ramp down: T_P to T_L = 6°C/s Max.

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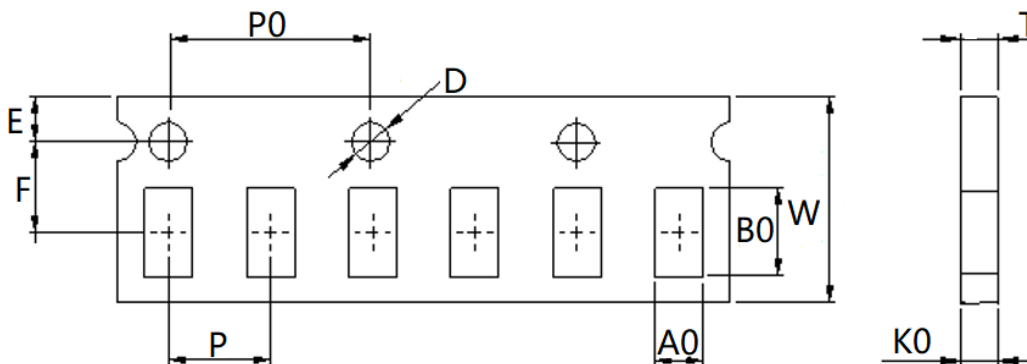
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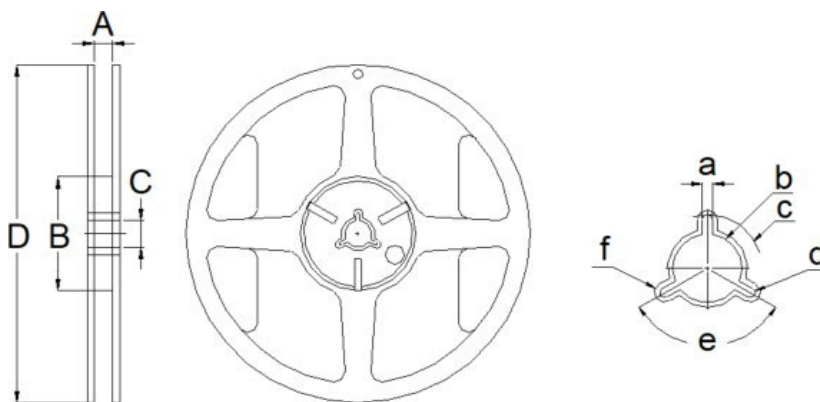
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Packaging

Tape & Reel: 4K pcs/reel



Package	B0	A0	K0	P	T
A	1.78±0.10	0.97±0.10	0.78 Max	4.00±0.10	0.78 Max
B	1.90±0.05	1.10±0.05	0.95±0.05	4.00±0.10	0.95±0.05
	E	F	P0	D	W
A	1.75±0.10	3.50±0.10	2.00±0.10	4.00±0.10	1.50+0.10/-0.00
B	3.50±0.10	2.00±0.10	4.00±0.10	1.50+0.10/-0.00	8.00±0.10



A	B	C	D	a
9.0 Ref	60.0 Ref	13.5 Ref	178.0 Ref	2.0 Ref
b	c	d	e	f
13.5 Ref	R10.5	R0.5	120°	R1.9

Dimensions: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



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