

Outgassing Compliant Wideband Transformers



- Miniature wideband transformer: 4 mm square 3 mm high
- 300 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating
- High temperature materials allow operation in ambient temperatures up to 155°C.
- Passes NASA low outgassing specifications
- Leach-resistant base metalization with tin-lead (Sn-Pb) terminations ensures the best possible board adhesion.

Core material Ferrite

Terminations Tin-lead (63/37) over silver-platinum-glass frit.

Ambient temperature -55°C to +155°C

Maximum part temperature +155°C (ambient + temp rise).

Storage temperature Component: -55°C to +155°C.

Tape and reel packaging: -55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Enhanced crush-resistant packaging 750/7" reel;

Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.9 mm pocket depth

Part number ¹	Schem.	Impedance ratio ² pri:sec	Bandwidth (MHz)	Insertion loss max (dB)	Pins 1-3 (primary)		Pins 4-6 (secondary)		DC imbalance ⁵ max (mA)
					L min ³ (μH)	DCR max ⁴ (mOhm)	L min ³ (μH)	DCR max ⁴ (mOhm)	
AR458RFW01A1SZ	A	1:1	0.470-950	0.40	7.5	108	7.5	108	—
AR458RFW01B1SZ	B	1:1	1.30-1100	0.80	2.7	52	2.7	52	36.0
AR458RFW02B1SZ	B	1:2	0.480-700	0.45	7.3	92	14.6	155	8.5
AR458RFW03B1SZ	B	1:3	0.630-830	0.60	4.8	78	14.6	155	8.5
AR458RFW04B1SZ	B	1:4	3.00-1100	1.80	1.2	46	4.8	62	30.0
AR458RFW04B2SZ	B	1:4	3.20-1150	1.80	1.2	56	4.8	85	15.0
AR458RFW04B3SZ	B	1:4	1.20-1000	0.85	2.7	72	10.8	112	10.0
AR458RFW04B4SZ	B	1:4	0.750-900	0.50	4.8	90	19.2	155	7.5
AR458RFW08B1SZ	D	1:8	1.40-950	0.90	2.7	54	19.2	155	17.0
AR458RFW09B1SZ	B	1:9	0.680-550	0.50	4.8	85	43.2	222	5.0
AR458RFW16B1SZ	B	1:16	1.36-420	0.85	2.7	72	43.2	222	5.0
AR458RFW04C1SZ	C	1:4	3.70-1600	1.60	1.2	36	4.8	53	30.0

1. When ordering, please specify **screening** code:

AR458RFW04C1SZ

Screening:

Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

2 = EEE-INST-002 level 2

3 = EEE-INST-002 level 3

4 = MIL-STD-981 Class B

5 = MIL-STD-981 Class S

F = Screening per ESCC 3201

All screening performed to the document's latest revision

Custom screening also available

Note: Screening T and U have been replaced with more

detailed codes 4, 5, and 1, 2, 3, respectively. Codes

T and U can still be used, if necessary.

2. Impedance ratio is for the full primary winding to the full secondary winding.

3. Inductance measured at 100 kHz, 0.1 V, 0 Adc on an Agilent/HP 4192 or equivalent.

4. DCR measured on a micro-ohmmeter.

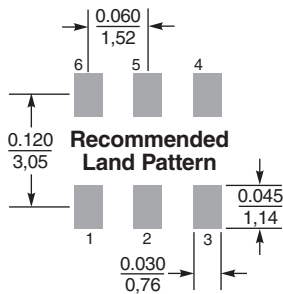
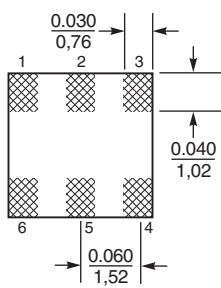
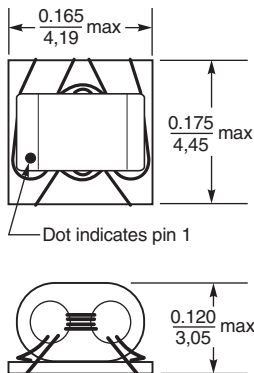
5. DC imbalance is the maximum difference in current measured at pins 4 and 6 with the source at pin 5. Inductance drop is 15% at maximum imbalance.

6. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

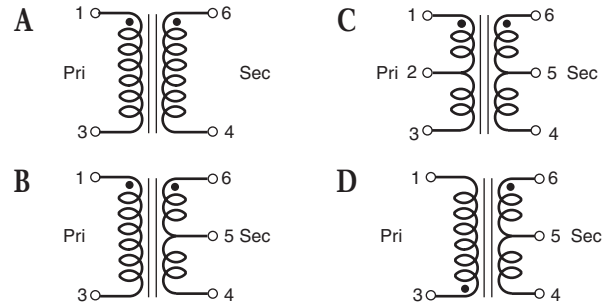
AR458RFW Outgassing Compliant Wideband Transformers

Dimensions

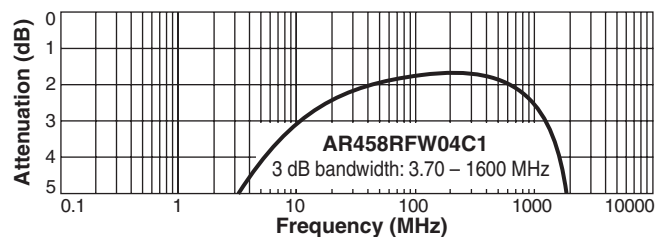
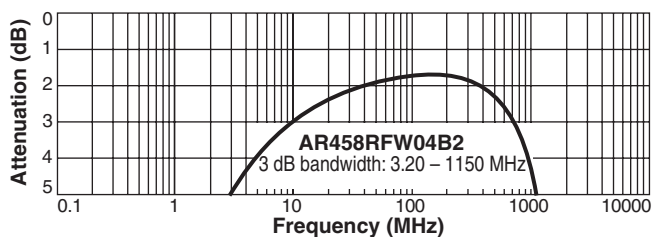
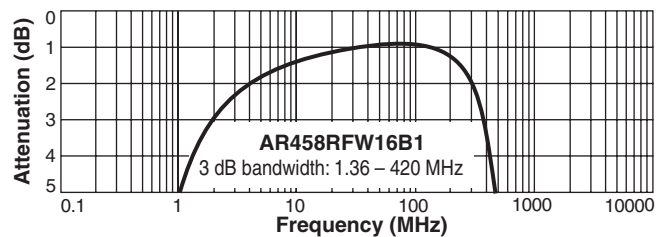
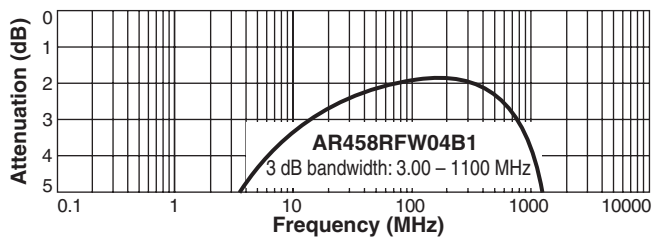
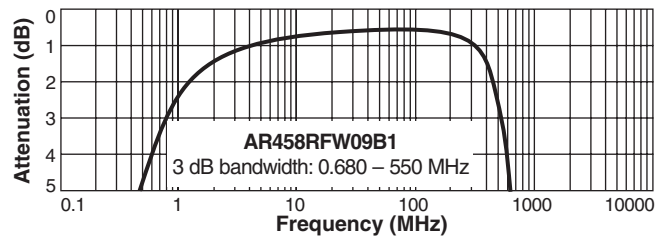
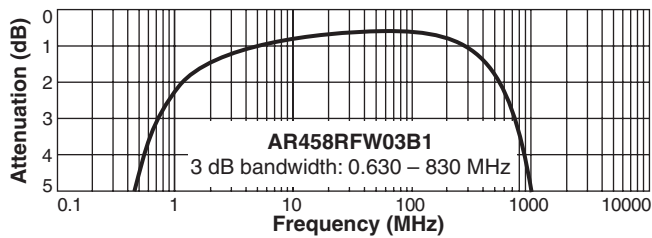
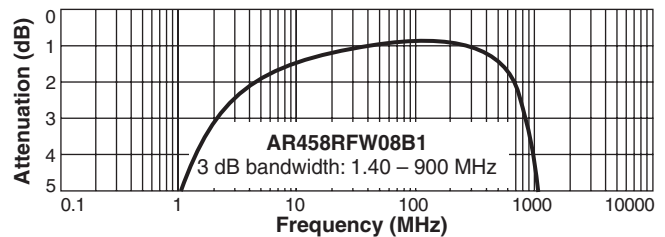
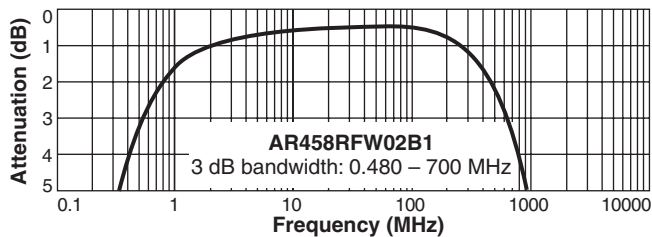
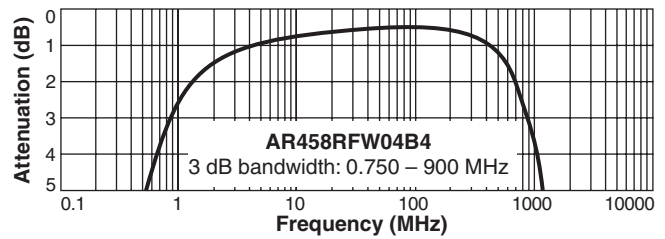
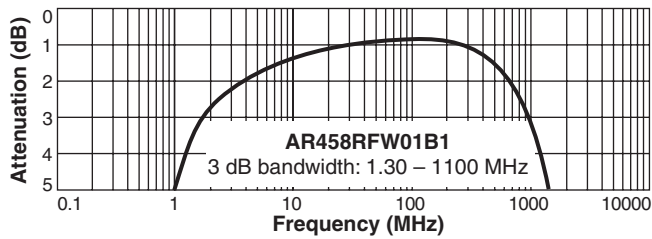
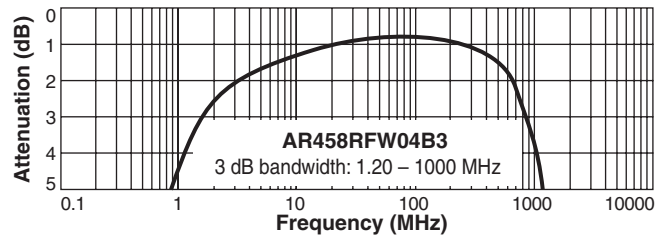
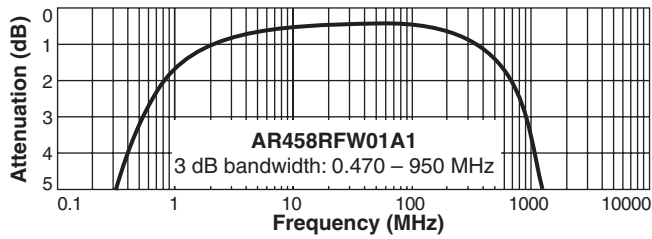


Dimensions are in inches/mm

Schematics



AR458RFW Outgassing Compliant Wideband Transformers



Attenuation measured on a network analyzer (re: 50 Ohms)