COMMON MODE CHOKE

P7500 Family

Features

* Small size
* Wideband suppression
* Low profile (<2.0mm)
* Surface Mount
* Flat top for pick & place
* Lead-free (Pb-free)

Applications

* Noise suppression
* Common mode suppression
* USB lines
* IEEE 1394

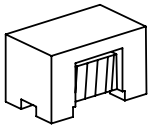
DESCRIPTION

The P7500 family is suitable for Common Mode suppression across a broad range of signal applications. Good Common Mode performance is achieved to beyond 500MHz.

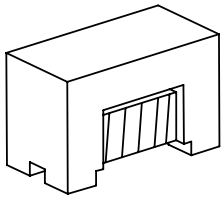
All chokes will handle DC currents of 300mA minimum.

Components are available in two mechanical sizes similar to EIA 0805 and 1206.

The P7500 family of components provides reliable lead-free terminations suitable for lead-free and conventional placement and reflow.



P7500-2012



P7500-3216

SPECIFICATIONS

Electrical

2012 size (EIA 0805)

Part Number	Common mode Impedance at 100MHz (Ω)(1)	DCR (Ω) Max	Rated Current(2) I_{DC} (mA)
P7500-2012-900MT	90±25%	0.30	400
P7500-2012-161MT	160±25%	0.35	350
P7500-2012-221MT	220±25%	0.40	300

3216 size (EIA 1206)

Part Number	Common mode Impedance at 100MHz (Ω)(1)	DCR (Ω) Max	Rated Current(2) I_{DC} (mA)
P7500-3216-900MT	90±25%	0.30	400
P7500-3216-161MT	160±25%	0.35	350
P7500-3216-221MT	220±25%	0.40	300

Notes

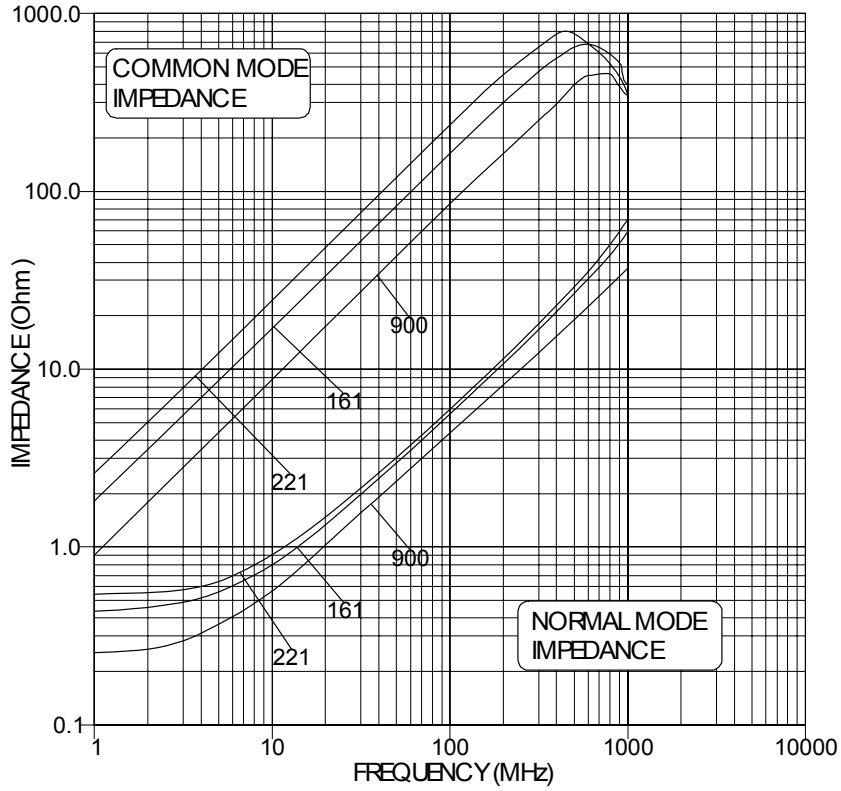
1. See fig. 1 and fig. 2 for typical impedance vs. frequency characteristics.
2. Rated current, I_{DC}, is the current at which the temperature rise is 40ºC (max).
3. Operating temperature -40ºC to +85ºC.
4. For non-standard inductance values, please contact Profec.

Voltage ratings (all variants)

Rated voltage	50VDC
Withstand Voltage	125VDC
Insulation resistance	10MΩ (min)

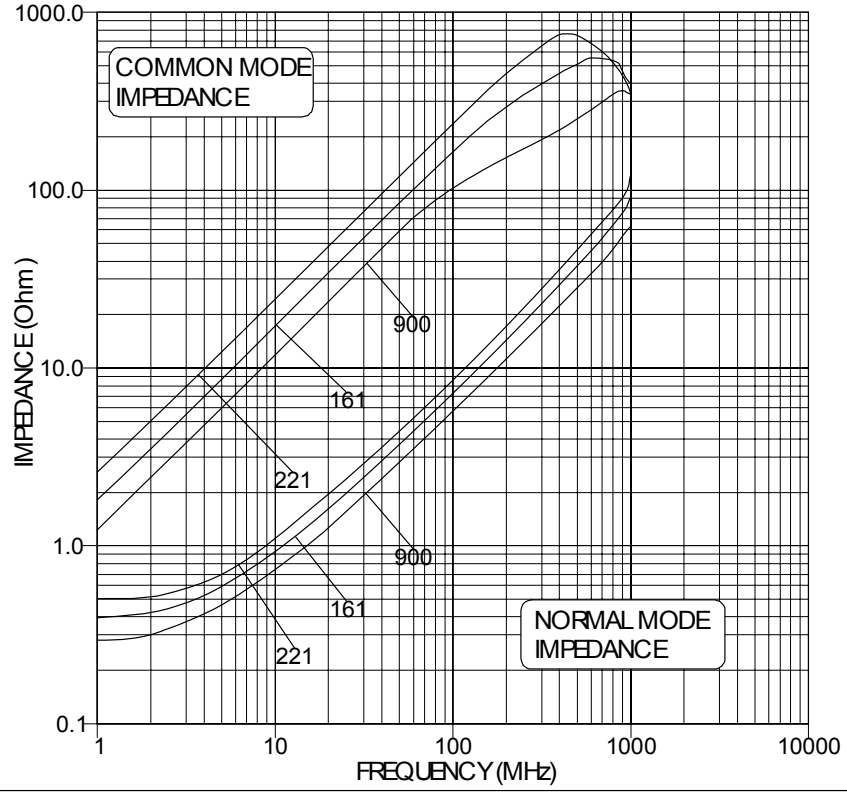
P7500-2012 impedance vs frequency characteristics

Fig. 1



P7500-3216 impedance vs frequency characteristics

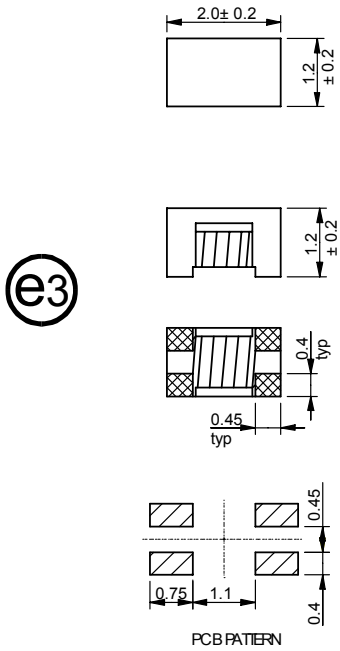
Fig. 2



CONSTRUCTION

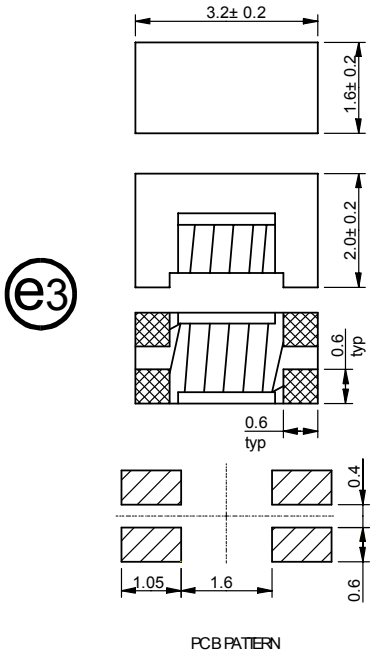
P7500-2012 dimensions

Fig. 3



P7500-3216 dimensions

Fig. 4



Dimensions shown are in millimetres
Terminal plating JESD97 Category = e3.
Recommended reflow solder profile: 2 minutes @ 150-200ºC, 10 seconds @ 260ºC; time above 217ºC 60 seconds maximum.
Note: these parts are ceramic bodied: avoid PCB flexure after mounting.

ORDERING CODE

P7500-□□□□-□□□MT

- Tape and Reel
- Tolerance (±25%)
- Impedance code (900, 161 or 221)
- Size (2012 or 3216)
- Type code

ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40ºC to +105ºC
Operating temperature	-40ºC to +85ºC
Soldering temperature peak	
Reflow	260ºC 10s
Hand	260ºC 3s

Handle in accordance with IPC/JEDEC J-STD-033 procedure for components classified as IPC/JEDEC J-STD-020 Moisture Sensitivity Level 2.

ISO 9001
FM 25326

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