

# On-Board Type (DC) EMI Suppression Filters (EMIFIL®)

## Chip Common Mode Choke Coils Film Type DLP0NS/11S/31S Series

### DLP0NS Series

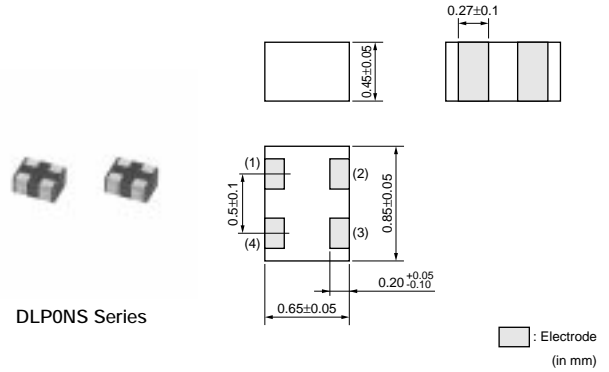
#### ■ Features

1. Small size and tight dimensional tolerance  
Size: 0.85x0.65x0.45mm Tolerance: +-0.05mm
2. Useful impedance line-up from 67 ohm to 120 ohm
3. DLP0NS series enables noise suppression for differential signal line without distortion in high-speed signal transmission due to its line impedance matching

#### ■ Applications

Common mode noise suppression of high speed differential signal lines for USB 2.0, IEEE1394, LVDS

1. Note PCs
2. Cellular phones
3. Digital Still Cameras, Digital Video Cameras

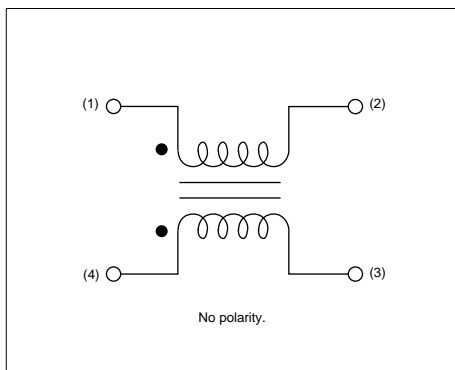


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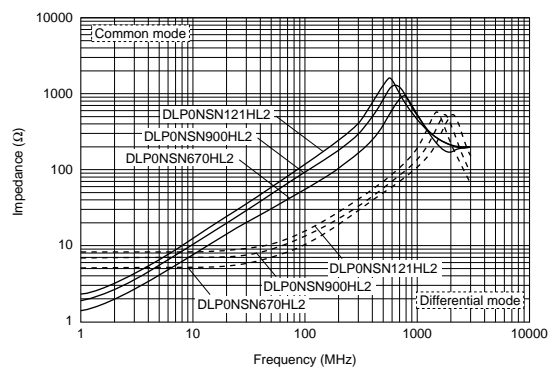
| Part Number   | Common Mode Impedance (at 100MHz/20 degree C) (ohm) | Rated Current (mA) | Rated Voltage (Vdc) | Insulation Resistance (min.) (M ohm) | Withstand Voltage (Vdc) | DC Resistance (ohm) |
|---------------|---|--------------------|---------------------|--------------------------------------|-------------------------|---------------------|
| DLP0NSN670HL2 | 67 ±20%   | 110                | 5                   | 100                                  | 12.5                    | 2.4 ±25%            |
| DLP0NSN900HL2 | 90 ±20%   | 100                | 5                   | 100                                  | 12.5                    | 3.0 ±25%            |
| DLP0NSN121HL2 | 120 ±20%  | 90                 | 5                   | 100                                  | 12.5                    | 3.8 ±25%            |


Operating Temperature Range: -40°C to 85°C

#### ■ Equivalent Circuit



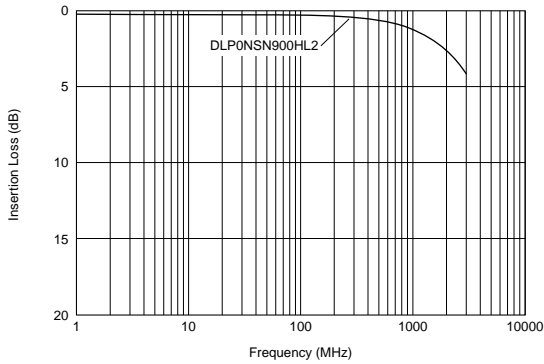
#### ■ Impedance - Frequency



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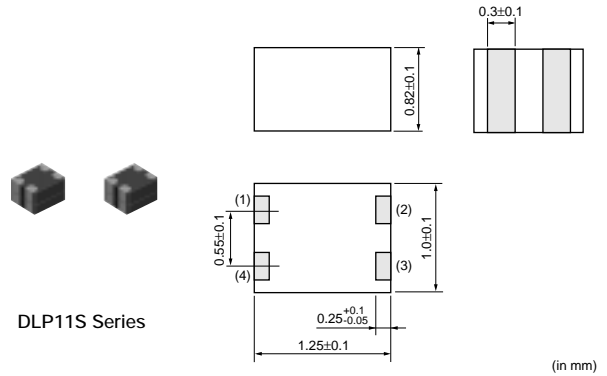
## Transmission Characteristics (Typical)



## DLP11S Series

### Features

1. Small size and tight dimensional tolerance  
Size: 1.25x1.0x0.82mm Tolerance: +0.1mm
2. Useful impedance line-up from 67 ohm to 330 ohm
3. DLP11S series enables noise suppression for differential signal line without distortion in high-speed signal transmission due to its high coupling
4. DLP11SN\_HL2, DLP11SA series match with line impedance
5. High Cutoff Frequency is suitable for high speed differential signal line such as HDMI.  
Cutoff Frequency: 6GHz (DLP11SA series)



DLP11S Series

(in mm)

### Applications

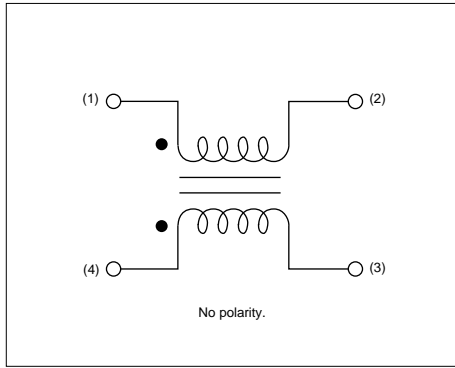
Common mode noise suppression of high speed differential signal lines for USB, IEEE1394, LVDS

1. Note PCs, PDAs
2. Cellular phones
3. Digital Still Cameras, Digital Video Cameras

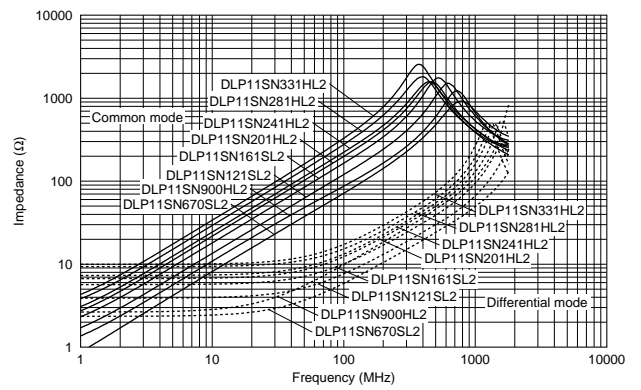
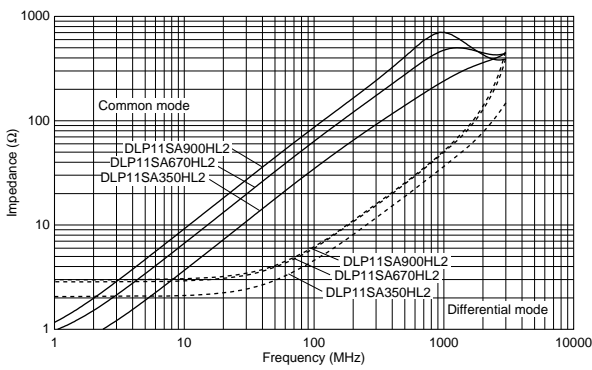
| Part Number   | Common Mode Impedance (at 100MHz/20 degree C) (ohm) | Rated Current (mA) | Rated Voltage (Vdc) | Insulation Resistance (min.) (M ohm) | Withstand Voltage (Vdc) | DC Resistance (ohm) |
|---------------|---|--------------------|---------------------|--------------------------------------|-------------------------|---------------------|
| DLP11SA350HL2 | 35 ±20%   | 170                | 5                   | 100                                  | 12.5                    | 0.9 ±25%            |
| DLP11SA670HL2 | 67 ±20%   | 150                | 5                   | 100                                  | 12.5                    | 1.2 ±25%            |
| DLP11SN670SL2 | 67 ±20%   | 180                | 5                   | 100                                  | 12.5                    | 1.3 ±25%            |
| DLP11SA900HL2 | 90 ±20%   | 150                | 5                   | 100                                  | 12.5                    | 1.4 ±25%            |
| DLP11SN900HL2 | 90 ±20%   | 150                | 5                   | 100                                  | 12.5                    | 1.5 ±25%            |
| DLP11SN121SL2 | 120 ±20%  | 140                | 5                   | 100                                  | 12.5                    | 2.0 ±25%            |
| DLP11SN161SL2 | 160 ±20%  | 120                | 5                   | 100                                  | 12.5                    | 2.7 ±25%            |
| DLP11SN201HL2 | 200 ±20%  | 110                | 5                   | 100                                  | 12.5                    | 3.1 ±25%            |
| DLP11SN241HL2 | 240 ±20%  | 100                | 5                   | 100                                  | 12.5                    | 3.5 ±25%            |
| DLP11SN281HL2 | 280 ±20%  | 90                 | 5                   | 100                                  | 12.5                    | 4.2 ±25%            |
| DLP11SN331HL2 | 330 ±20%  | 80                 | 5                   | 100                                  | 12.5                    | 4.9 ±25%            |

Operating Temperature Range: -40°C to 85°C

## Equivalent Circuit



## Impedance - Frequency



## Transmission Characteristics (Typical)

