FilmTrim Variable Capacitors

16mm FilmTrim

Product Features

- Dielectrics:
  Polycarbonate
  Polymide
- SMD and lead-through-hole mounting
- Top, Bottom and Side Mount models
- Wide capacitance ranges
- Low cost
- Linear capacitance change vs. rotation
- Compact size

Product Applications

Typical Applications:

- Antennas • Transmitters
- RF Equipment
- Test Equipment

Modifications & Variations:

- Special capacitance ranges
- Special terminal sizes & shapes
- Extended Adjust shafts
- High temperature versions for PTFE
- Silver and/or Gold Plating

Part Numbering

PP	Z	N	201	00
PP = Passive Plus	Dielectric Code *See Table*	Style *N = 16mm Top Adjust*	Capacitor Code *100=10x10⁰=10pF 201=201pF*	Options

RoHS

For special requests, please contact □□I directly.

Dielectrics

Dielectrics	
Code	**Description**
Z	PC (Polycarbonate) or PI (Polyimide)

Style

Style	
Code	**Description**
N	16mm Top Adjust
P	16mm Side Adjust

Capacitance

Capacitance Code
201 = 200pF

Special Options

Special Options (Top Adjust Models)	
Code	**Description**
00	Standard

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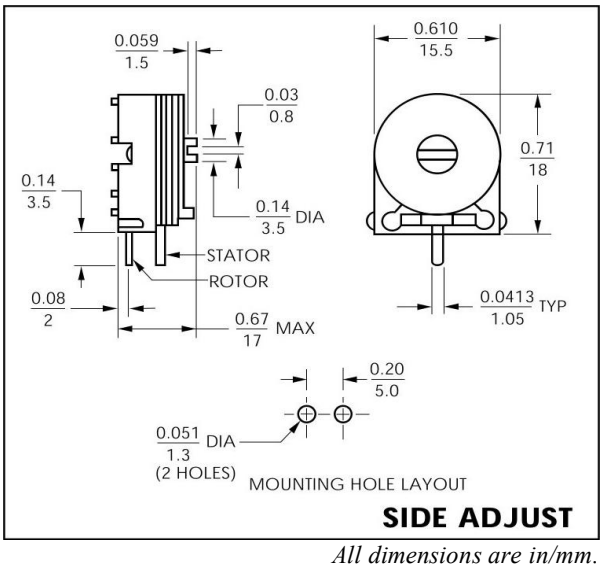
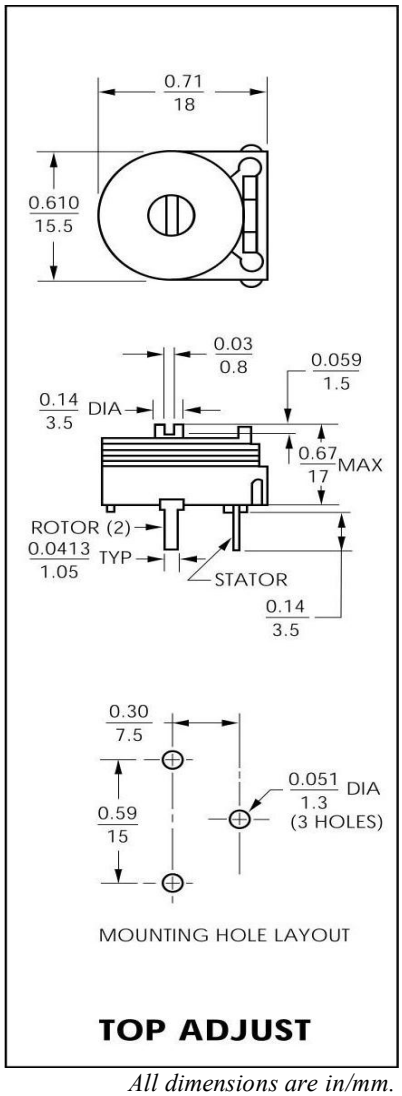
Electrical Specifications

Dielectrics	• Polypropylene (PP) • Polycarbonate (PC)
Voltage Rating	150 VDC
Dielectric Withstanding Voltage	300 VDC
Contact Resistance	≤ 0.010mΩ
Insulation Resistance	≥10,000MΩ
Rotation Torque	0.15….3.5Ncm



All dimensions are in/mm.



All dimensions are in/mm.

General Specifications

Dielectric	Capacitance (pF) min	Capacitance (pF) max	Q min (1MHz)	TCC (ppm/°C)	Operating Temperature (°C)	H max in/mm	Color Code	Model Number Top Adjust	Model Number Side Adjust
PC	8.0	120	200	0±300	-40 to +85	0.66/16.8	Red	PPZN12100	PPZP12100
	9.0	160	200	0±300		0.66/16.8	Violet	PPZN16100	PPZP16100
	9.0	200	200	0±300		0.66/16.8	Orange	PPZN20100	PPZP20100
	18	300	200	0±300		0.66/16.8	Red	PPZN30100	PPZP30100
	23	350	100	0±350		0.66/16.8	Red	PPZN35100	PPZP35100
	23	380	100	0±350		0.66/16.8	Red	PPZN38100	PPZP38100
	25	430	100	0±350		0.66/16.8	Violet	PPZN43100	PPZP43100
	26	600	100	0±350		0.66/16.8	Grey	PPZN60100	PPZP60100
	40	770	100	0±350		0.66/16.8	Grey	PPZN77100	PPZP77100
PTFE	16	250	1000	-100±200	-40 to +85	0.66/16.8	None	PPXN25100	PPXP25100

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Specifications Notes

1. Parts are 100% tested for capacitance range and dielectric withstanding voltage.
2. Capacitance range specified is that which is guaranteed and is measured at 1 MHz at room temperature.
3. Q factor is measured at maximum rated capacitance and at room temperature.
4. Dielectric strength is measured at maximum rated capacitance and room temperature, with test voltage (as listed for each model) applied for 60 seconds.
5. Insulation resistance is measured at maximum rated capacitance and room temperature and at rated voltage, unless otherwise specified.
6. Temperature coefficient of capacitance (TCC) is measured at 1 MHz over the operating temperature range, with capacitor set at maximum rated capacitance.
7. Axial load during tuning should not exceed 200 grams force. At maximum axial load, capacitance change is no more than 15%.
8. Capacitors should not be operated outside of rated capacitance range and working voltage.

Soldering FilmTrim Capacitors

Dip soldering:
260°C ± 10°C for 7 seconds maximum.

Hand Soldering
(for lead-through-hole models):
Tip temperature 350°C ± 10°C for 3 to 4 seconds

Cleaning FilmTrim Capacitors

1. Water soluble fluxes and detergents with a water flush after soldering of the boards can be used for all parts.

2. Do not immerse FilmTrim models in chlorinated or fluorinated hydrocarbon solvents as this would adversely affect the plastic dielectrics and base materials.
Some customers have successfully used X models in scrubbers or sprayers where only bottom of the printed circuit boards is exposed to solvents.
If the process requires immersion in solvents for cleaning boards, the FilmTrim capacitors should be hand soldered to board after the boards have been cleaned.