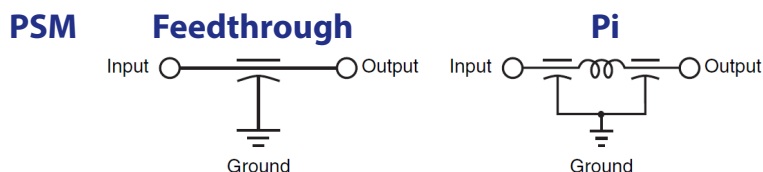
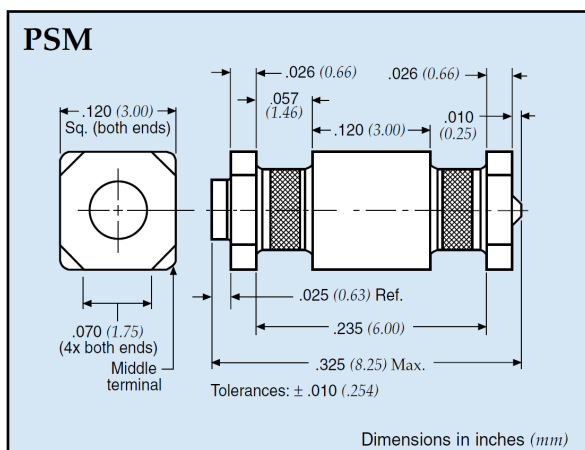
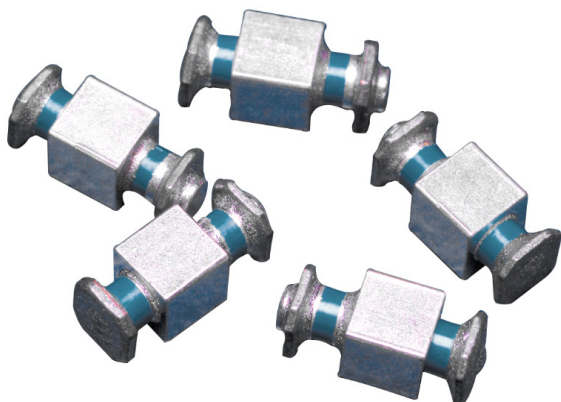


# Surface Mount Low Pass Filters

## PSM Series

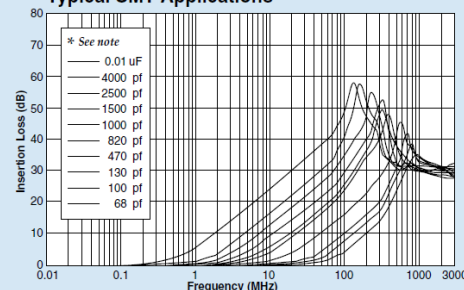


|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Voltage Rating DC     | 200 VDC @ -55°C to +125°C                       |
| DWV                   | 700 VDC                                         |
| Current Rating        | 20 Amps (Feedthrough) max.<br>10 Amps (Pi) max. |
| Insulation Resistance | 1.0 GΩ @ 25°C                                   |
| Dissipation Factor    | 4.0% maximum                                    |
| D.C.R                 | Max. .0005Ω, typ. .0002Ω                        |

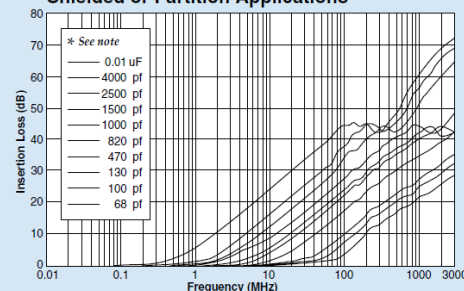


## Feed-Through Insertion Loss

### Typical SMT Applications



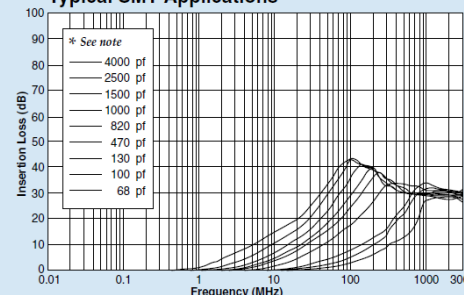
### Shielded or Partition Applications



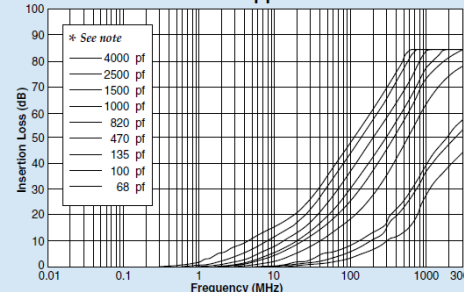
\* Capacitance values for insertion loss curves are displayed left to right in the order shown.

## Pi Insertion Loss

### Typical SMT Applications



### Shielded or Partition Applications



# Surface Mount Low Pass Filters

PSM Series

## PSM Ordering Information

Example: PSM4-402Z-20T0

| PSM         | 4                         | - | 402Z        | - | 20                                              | T                                                 | 0                                                                                                                   |
|-------------|---------------------------|---|-------------|---|-------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Style       | Circuit Configuration     |   | Capacitance |   | Current Rating                                  | Packaging                                         | Tape and Reel                                                                                                       |
| PSM (Power) | 1 - Pi<br>4 - Feedthrough |   |             |   | 10 - 10 Amps (Pi)<br>20 - 20 Amps (Feedthrough) | T - Tape and reel packaging<br>B - Bulk packaging | 0 - 500 pieces<br>2 - 2,000 pieces<br><i>Note: Tape and reel packaging - 500 pieces (7") and 2,000 pieces (13")</i> |

† Also available through APITech's authorized distributors.

| Code   | Value*  | Tolerance |
|--------|---------|-----------|
| 680M   | 68 pF   | ±20%      |
| 101M   | 100 pF  | ±20%      |
| 131P   | 130 pF  | +100/-0%  |
| 471P   | 470 pF  | +100/-0%  |
| 821M   | 820 pF  | ±20%      |
| 102M   | 1000 pF | ±20%      |
| 152M   | 1500 pF | ±20%      |
| 252P   | 2500 pF | +100/-0%  |
| 402Z   | 4000 pF | +80/20%   |
| 103Z** | .01 µF  | +80/-20%  |

## Technical Notes

- Soldering recommendations supplied upon request
- Reflow temperature limit is 250°C
- Unit weight is approximately 0.4 grams
- Tape and reel packaging available for automated assembly

## PSM Recommended Board Pattern



Solder paste pattern



Recommended pad, must be able to support continuous signal current

X = 0.350" minimum for 1 oz. copper (0.036 mm thickness)

X = 0.200" minimum for 2 oz. copper (0.071 mm thickness)

For low current (10 Amp or less)  
X = 0.130" minimum for 1 oz. copper (0.036 mm thickness for 10 Amp and 0.5 oz. copper - 0.018 mm)

