

Features

- Lead free as standard
- RoHS compliant*
- ESD protection
- Protects up to 4 lines
- Bidirectional EMI filtering

Applications

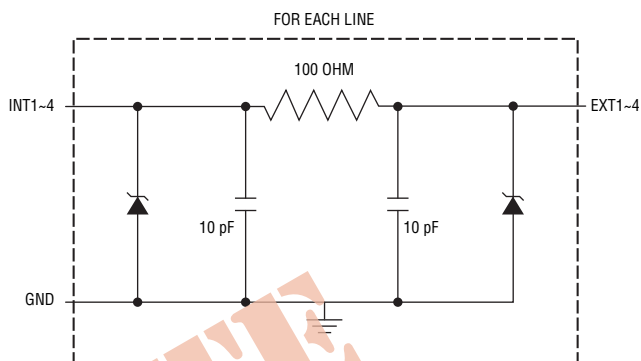
- Cell phones
- PDAs and notebooks
- GPS and SMART cards
- Color LCD Display Panel

2FAF-M8R Integrated Passive & Active Devices

General Information

The 2FAF-M8R device, manufactured using Thin Film on Silicon technology, provides ESD protection for the external ports of portable electronic devices such as cell phones, notebooks and PDAs.

The ESD protection provided by the component enables a data port to withstand a minimum ± 8 KV Contact / ± 15 KV Air Discharge per the ESD test method specified in IEC 61000-4-2. The device measures 2 mm x 2 mm and can be mounted directly onto an FR4 printed circuit board. The device meets typical thermal cycle and bend test specifications without the use of an underfill material.



Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

| Parameter | Symbol | Min. | Nom. | Max. | Unit |
|-------------------------------------|----------|----------|------|------|---------------|
| Resistance | R | 80 | 100 | 120 | Ω |
| Capacitance @ 2.5 V, 1 MHz | C | 16 | 20 | 24 | pF |
| Rated Standoff Voltage | V_{WM} | | 5 | | V |
| Breakdown Voltage @ 1 mA | V_{BR} | 6 | | | V |
| Forward Voltage @ 10 mA | V_F | | 0.8 | | V |
| Leakage Current @ 3 V | I_D | | | 0.1 | μA |
| ESD Protection: IEC 61000-4-2 | | | | | |
| Contact Discharge | | ± 8 | | | kV |
| Air Discharge | | ± 15 | | | kV |
| Frequency: | | | | | |
| Attenuation @ 800-3000 MHz | f_c | 25 | 35 | | db |
| Cut-off (50 Ω I/O) Zero Bias | | | 150 | | MHz |
| DC Power per Resistor | P | | | 100 | mW |

Thermal Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

| Parameter | Symbol | Min. | Nom. | Max. | Unit |
|-----------------------------|-----------|------|------|------|------------------|
| Operating Temperature Range | T_J | -40 | +25 | +85 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 | +25 | +150 | $^\circ\text{C}$ |

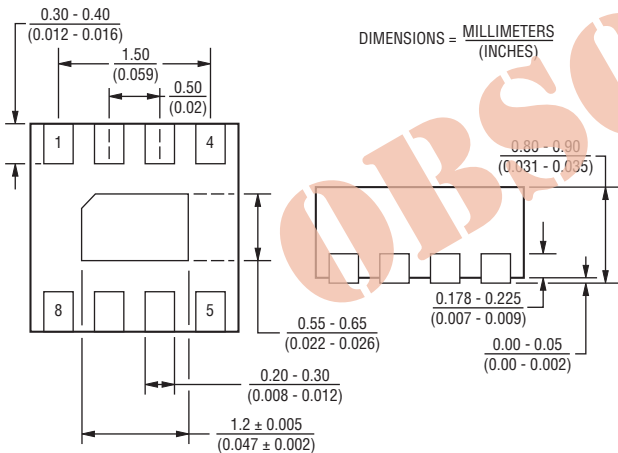
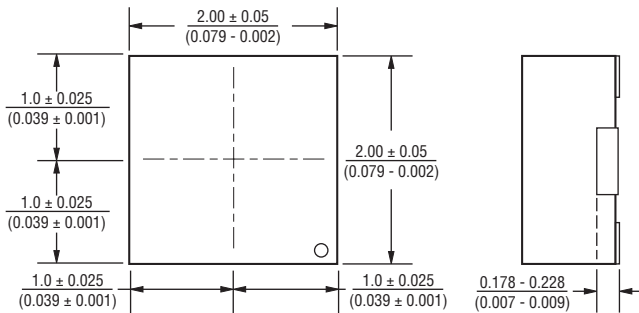
*RoHS Directive 2002/95/EC Jan 27 2003, including Annex
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

2FAF-M8R Integrated Passive & Active Devices

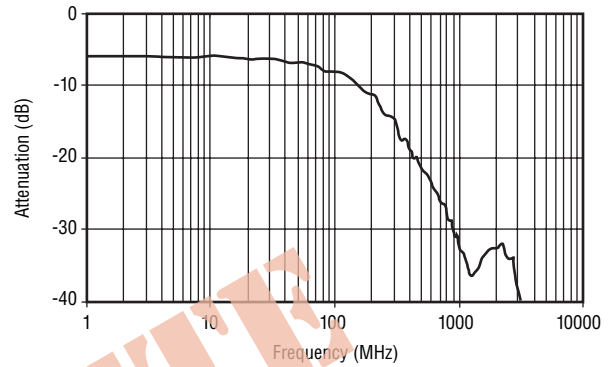


Product Dimensions

This device consists of a DFN package. It consists of 8 I/O pins and 1 ground pin and has a flammability rating of UL 94V-0. The package measures 2 mm x 2 mm, weighs approximately 0.10 mg and has a 100 % Sn finish termination.

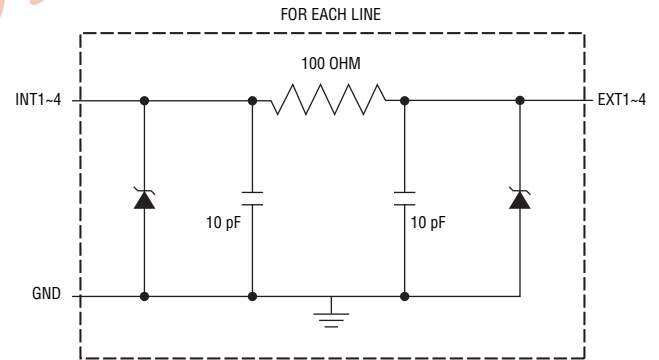


Frequency Response

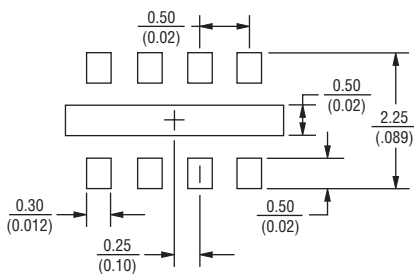


Block Diagram

The device block diagram below includes the pin names and basic electrical connections associated with each channel.



Recommended Pad Layout



Typical Part Marking

2FAF-M8R FAFM8R

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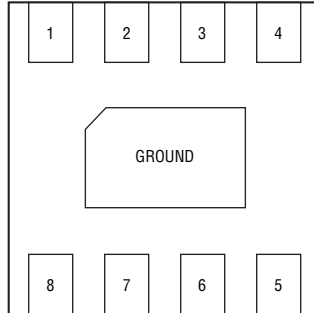


How to Order

2 FAF - M8R

Thinfilm _____
 Model _____
 Micro Leadframe _____
 Number of Pads _____
 Packaging Option _____
 R = Tape and Reel
 Packaged 3000 pcs. / 7" reel

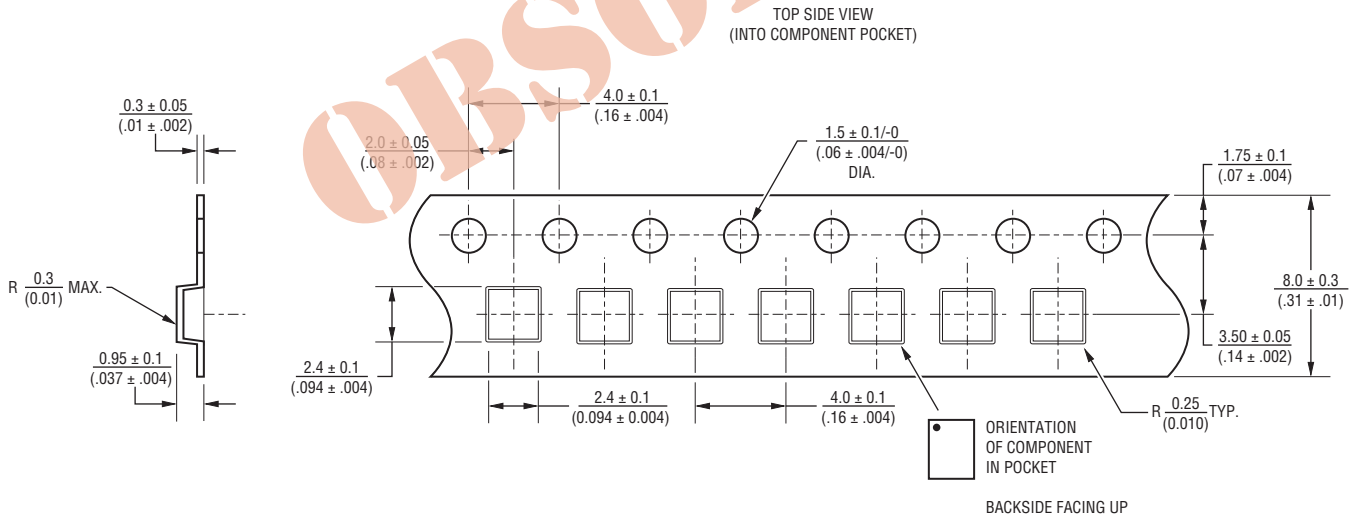
Device Pin Out



| Pin | Function |
|-----|----------|
| 1 | INT 1 |
| 2 | INT 2 |
| 3 | INT 3 |
| 4 | INT 4 |
| 5 | EXT 4 |
| 6 | EXT 3 |
| 7 | EXT 2 |
| 8 | EXT 1 |

Packaging

The surface mount product is packaged in a 8 mm x 4 mm Tape and Reel format per EIA-481 standard.



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