

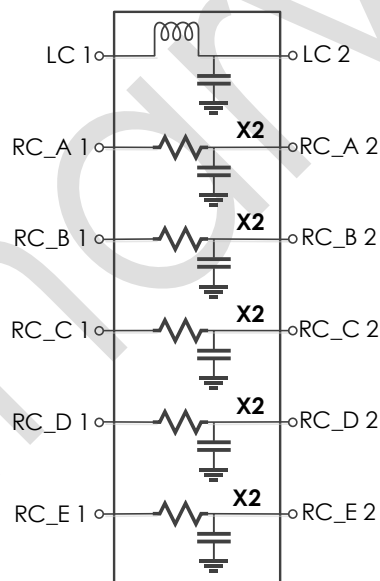
### Description

AM35 provides 6 filters in a tiny 1.5mm x 3mm package for filtering power and control lines that is necessary for spurious signal suppression for amplifiers, step attenuators, tunable filters, and switches. The device offers simplicity and space savings compared to the traditional discrete design approaches. The AM35 provides one power line filter and 5 control line filters spaced at 0.5mm pitch to mate perfectly with your standard QFN devices.

### Features

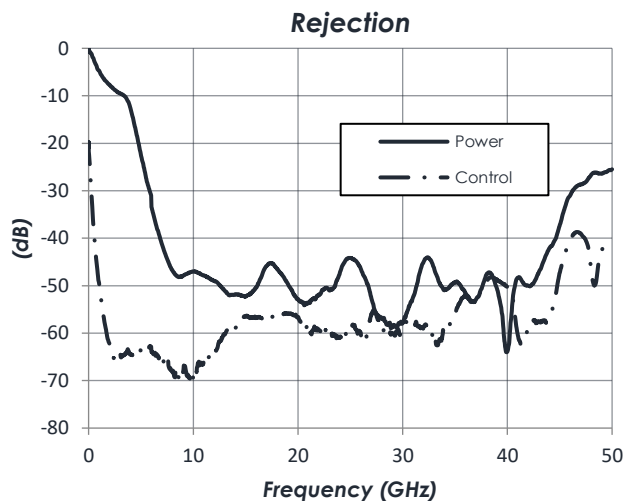
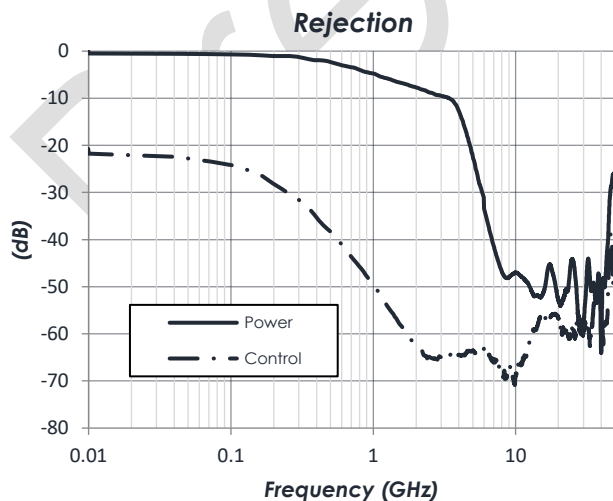
- One Power Line Filter
- Five Control Line Filters
- 100 MHz Corner Frequency – Control
- 300 MHz Corner Frequency – Power
- 50 dB Rejection
- 15 V Voltage Handling Capability
- 5mA/160mA Control/Power Capability
- 1.5mm x 3mm DFN
- 0.5 mm Lead Pitch
- -40C to +85C Operation

### Functional Diagram



### Characteristic Performance

(T = 25° C. Rejection based on 50 Ω source, 50 Ω load)



### Table of Contents

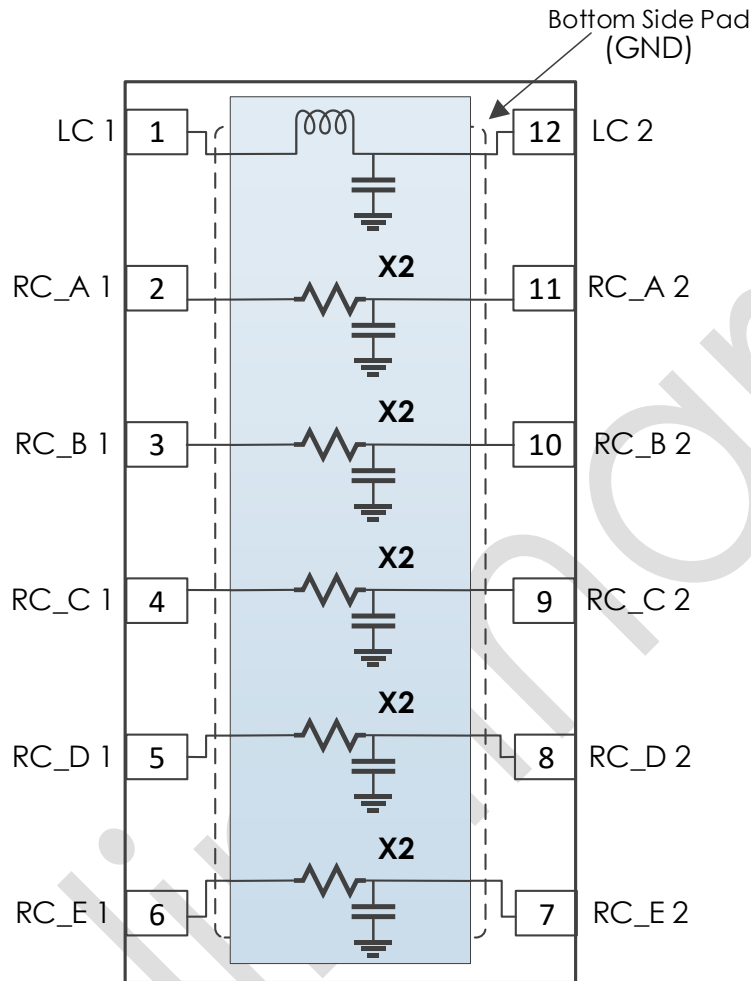
<b>Description</b> .....	1	Absolute Maximum Ratings.....	4
<b>Features</b> .....	1	Handling Information.....	4
<b>Functional Diagram</b> .....	1	Recommended Operating Conditions ...	4
<b>Characteristic Performance</b> .....	1	<b>Example Application</b> .....	5
<b>Revision History</b> .....	2	<b>Package Details</b> .....	6
<b>Pin Layout and Definitions</b> .....	3	<b>Component Compliance Information</b> .....	7
<b>Specifications</b> .....	4		

### Revision History

Date	Revision Number	Notes
December 20, 2018	0	Preliminary Release

Preliminary

### Pin Layout and Definitions



Pin Number	Pin Name	Pin Function
1	LC1	Power Line Filter Port 1
2	RC_A1	Control Line Filter A Port 1
3	RC_B1	Control Line Filter B Port 1
4	RC_C1	Control Line Filter C Port 1
5	RC_D1	Control Line Filter D Port 1
6	RC_E1	Control Line Filter E Port 1
7	RC_E2	Control Line Filter E Port 2
8	RC_D2	Control Line Filter D Port 2
9	RC_C2	Control Line Filter C Port 2
10	RC_B2	Control Line Filter B Port 2
11	RC_A2	Control Line Filter A Port 2
12	LC2	Power Line Filter Port 2
Bottom Pad	GND	Ground – Common

# AM35 – Filter Bank

## Power and Control Line



## Specifications

### Absolute Maximum Ratings

	Minimum	Maximum
DC Input Voltage		20 V
DC Input Current – Power Line		160 mA
DC Input Current – Control Lines		5 mA
Storage Temperature Range	-50 C	+150 C

**Note:** Any device operation beyond the Absolute Maximum Ratings may result in permanent damage to the device. The values listed in this table are extremes and do not imply functional operation of the device at these or any other conditions beyond what is listed under Recommended Operating Conditions. Any part subjected to conditions outside of what is recommended for an extended amount of time may suffer from reliability concerns.

### Handling Information

	Minimum	Maximum
Storage Temperature Range (Recommended)	-50 C	+125 C
Moisture Sensitivity Level	MSL 3	



Atlanta Micro products are electrostatic sensitive.  
Follow safe handling practices to avoid damage

### Recommended Operating Conditions

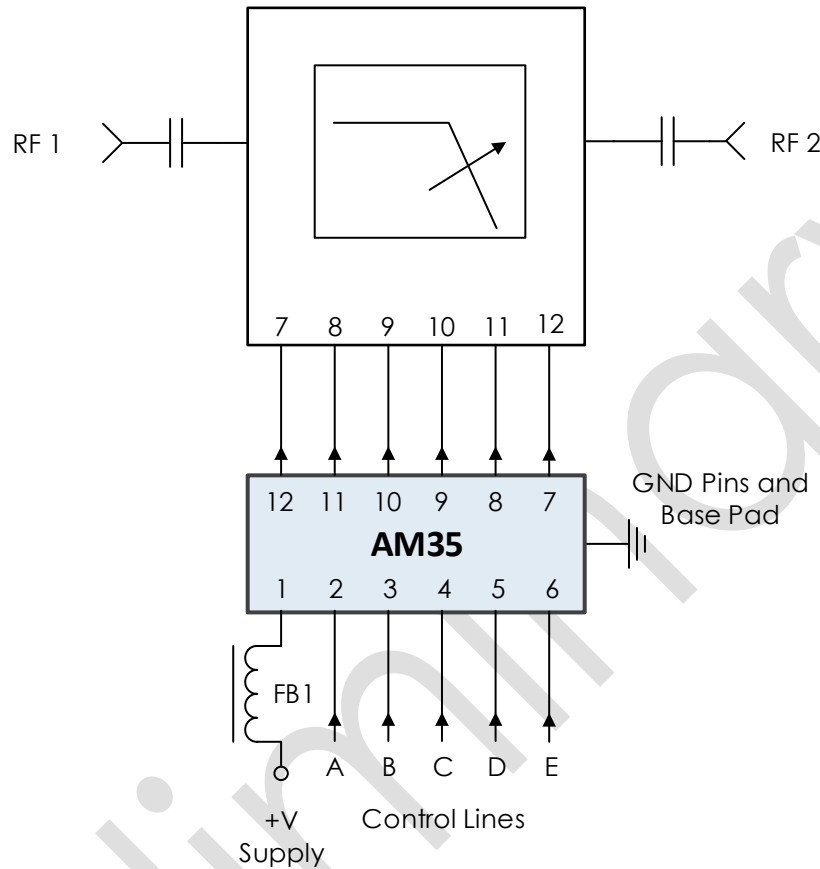
	Minimum	Typical	Maximum
Input Voltage			15 V
Input Current – Power Line			150 mA
Input Current – Control Lines			4 mA
Operating Case Temperature	-40 C		+85 C

# AM35 – Filter Bank

## Power and Control Line

### Example Application

Discretely Tunable Filter



### Recommended Component List (or equivalent):

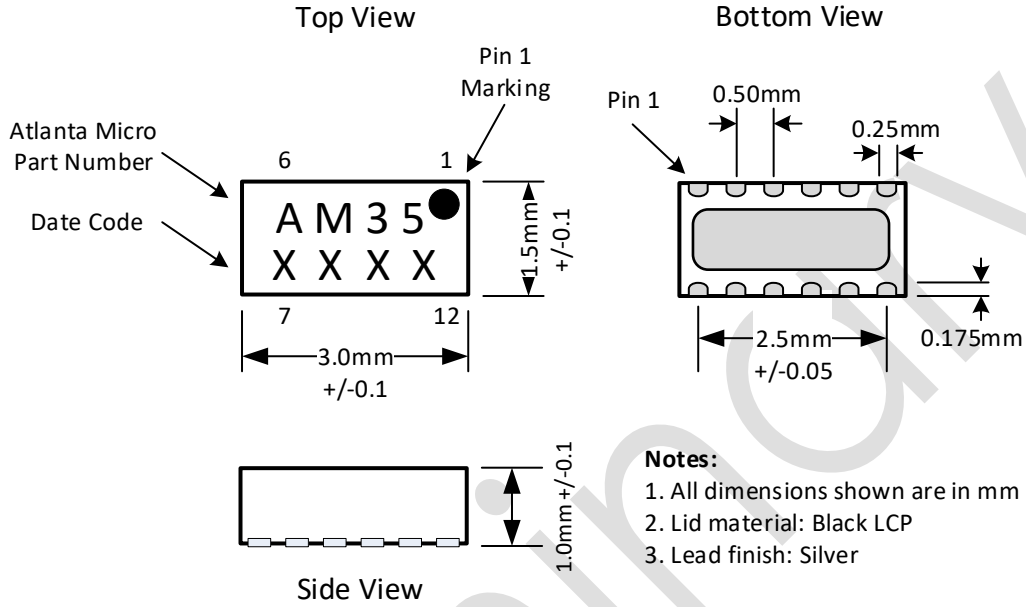
Part	Value	Part Number	Manufacturer
FB1	-	MMZ1005A222E	TDK

### Notes:

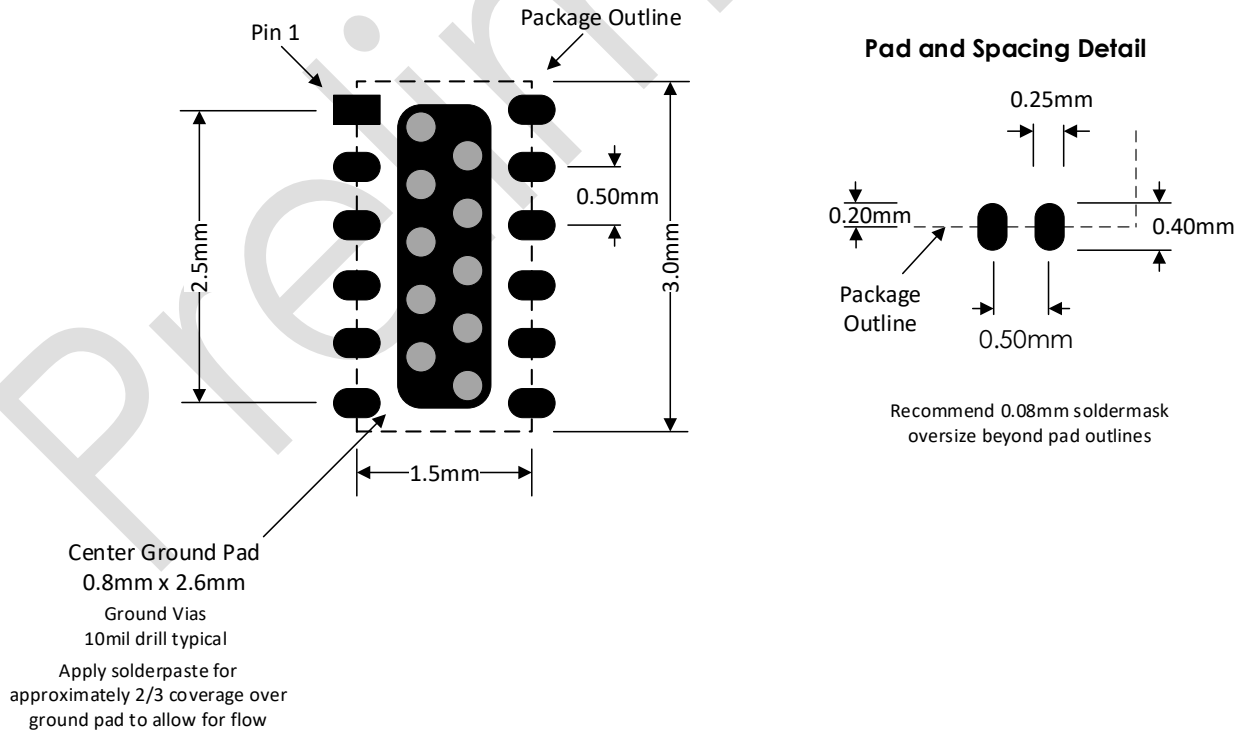
1. Use ferrite bead in series with power filtering line for better low frequency performance.

### Package Details

#### Package Drawing



#### Recommended Footprint



### Component Compliance Information

**RoHS:** Atlanta Micro, Inc. hereby certifies that all products comply with the EC Directive 2011/65/EC on the Restriction of Hazardous Substances, commonly known as RoHS II. All products supplied by Atlanta Micro shall be compliant with the European Directive 2011/65/EC based on the following substance list.

Substance List	Allowable Maximum Concentration
Lead (Pb)	<1000 PPM (0.1% by weight)
Mercury (Hg)	<1000 PPM (0.1% by weight)
Cadmium (Cd)	<75 PPM (0.0075% by weight)
Hexavalent Chromium (CrVI)	<1000 PPM (0.1% by weight)
Polybrominated Biphenyls (PBB)	<1000 PPM (0.1% by weight)
Polybrominated Diphenyl ethers (PBDE)	<1000 PPM (0.1% by weight)
Decabromodiphenyl Deca BDE	<1000 PPM (0.1% by weight)

**REACH:** Atlanta Micro, Inc. neither uses nor intentionally adds any of the substances considered to be a Substance of Very High Concern (SVHC) as defined by the EU Regulation (EC) No. 1907-2006 on Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH).

**Conflict Materials:** Atlanta Micro does not knowingly use materials that are sourced from the Democratic Republic of Congo (DRC) or any other known conflict regions. Atlanta Micro's supply chain is comprised of sources that are both environmentally and socially responsible. We periodically review this requirement with our vendors to ensure continued compliance.

Atlanta Micro takes its responsibility as a global partner seriously and will use due diligence within our supply chain to ensure all standards are met to the best of our knowledge.