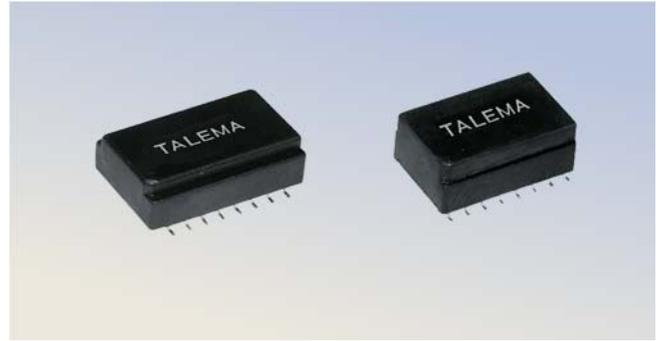




# ISDN S<sub>0</sub> Compact SMD Interface Modules

## Features

- excellent output characteristics ensure compliance with CCITT.I.430 pulse waveform template when used with recommended IC pairing
- SMD modules are designed for pick and place compatibility
- excellent and consistent balance between windings
- modular design maximizes suppression effectivity and transmission properties
- compact module eliminates three components reducing assembly and storage cost
- full compatibility with all common IC's
- operating temperature: 0 to 70°C



## Electrical Specifications @25°C

Turns Ratio: **Bold** = IC side windings

**Compact SMD Modules comply with Basic Insulation Level EN60950, UL1950 and UL1459**

| Part Number  | L <sub>P</sub><br>(mH Min) | Turns Ratio         | L <sub>L</sub><br>(μH Max) | ΔI <sub>DC</sub><br>(mA) | C <sub>C</sub><br>(pF Max) | R <sub>CU</sub> P<br>(Ohms) | R <sub>CU</sub> S<br>(Ohms) | V <sub>P</sub><br>(Vrms) | Schematic |
|--------------|----------------------------|---------------------|----------------------------|--------------------------|----------------------------|-----------------------------|-----------------------------|--------------------------|-----------|
| MSJ-400A-XXX | 30                         | 1:1:1:1             | 10                         | 4                        | 150                        | 1.7                         | 2.0                         | 1500                     | A         |
| MSJ-403A-XXX | 30                         | 1:1: <b>2:2</b>     | 10                         | 4                        | 150                        | 1.7                         | 4.0                         | 1500                     | A         |
| MSJ-405A-XXX | 30                         | 1:1: <b>2.5:2.5</b> | 10                         | 4                        | 150                        | 1.7                         | 4.6                         | 1500                     | A         |
| MAJ-400A-XXX | 30                         | 1:1:1:1             | 5                          | 4                        | 120                        | 1.7                         | 1.7                         | 1500                     | A         |
| MAJ-403A-XXX | 30                         | 1:1: <b>2:2</b>     | 5                          | 4                        | 120                        | 1.7                         | 3.4                         | 1500                     | A         |
| MAJ-405A-XXX | 30                         | 1:1: <b>2.5:2.5</b> | 5                          | 4                        | 120                        | 1.9                         | 4.4                         | 1500                     | A         |

### Common Mode Choke

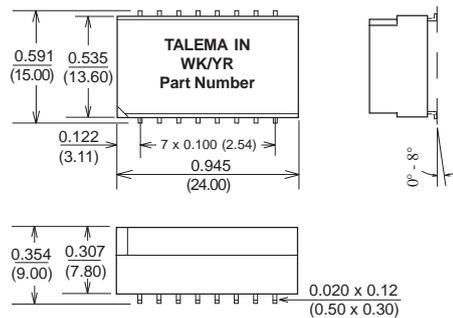
| Basic P/N + Suffix<br>(Example: MSJ-403A-470) | L <sub>N</sub><br>(μH) | R <sub>CU</sub><br>(Ohms) |
|---|------------------------|---------------------------|
| -000  | No Choke               |                           |
| -470  | 47                     | 0.5                       |
| -101  | 100                    | 0.7                       |
| -501  | 500                    | 0.5                       |
| -502  | 5000                   | 2.0                       |

### Test Conditions:

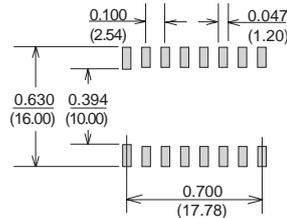
Inductance and coupling capacitance: 10kHz, 100mV  
 Common Mode Choke Inductance: 100kHz, 20mV  
 Leakage Inductance: 100kHz, 100mV

**Standard Packaging:** Tape and Reel

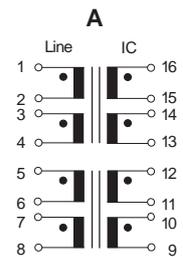
## MSJ Module



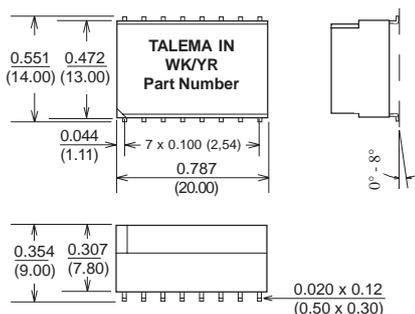
### Suggested Pad Layout MSJ



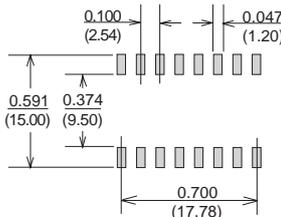
### Schematic - No Choke



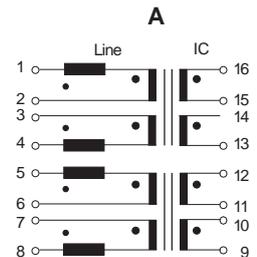
## MAJ Compact Chip Module



### MAJ



### Schematic - With Choke



Surface Coplanarity will be 0.004(0.10) maximum  
 Dimensions: Inches (Millimeters)  
 Tolerance: ±0.010 (0.25) unless specified otherwise