# A :  -

## : 301

**Description**

The FUSB301 is a fully autonomous Type−C controller optimized for <15 W applications. The FUSB301 offers CC logic detection for Source Mode, Sink Mode, Dual Role Port Mode, accessory detection support, and dead battery support. The FUSB301 features an external s e≥1 T2110ernaJ TTL W) to enabt Mernal

## ORDERING INFORMATION

| Part Number | Top Mark | Operating Temperature Range | Package | Packing Method |
|---|---|---|---|---|
| | | – ° | – – × × | |

## BLOCK DIAGRAM

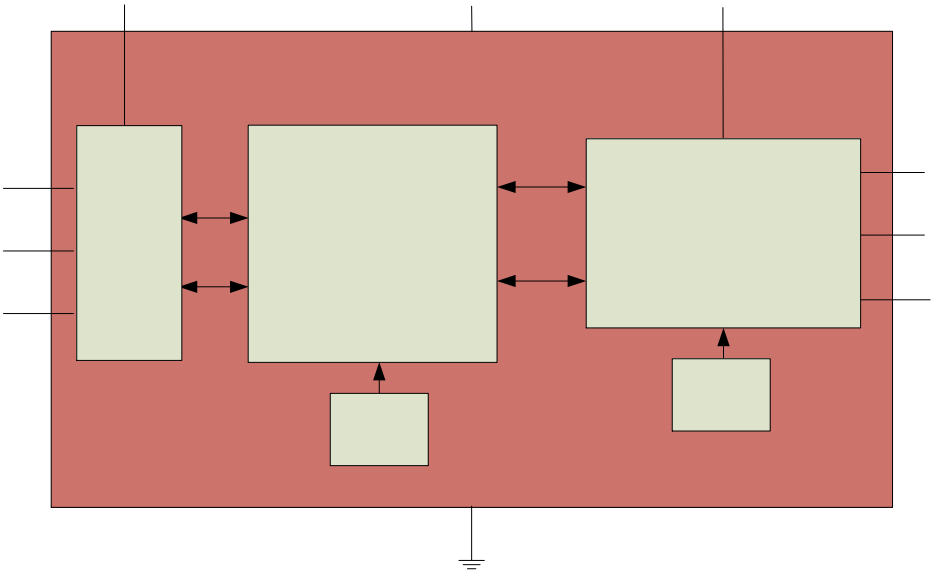

Figure 2. Block Diagram

## PIN CONFIGURATION

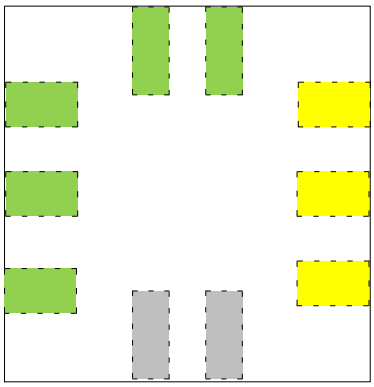

Figure 3. Pin Assignment (Top Through View)

# FUSB301

## ABSOLUTE MAXIMUM RATINGS

| Symbol | Parameter | | | Min. | Max. | Unit |
|---|---|---|---|---|---|---|
| | | | | – | | |
| | | | | – | | |
| | | | | – | | |
| | | | | – | | ° |
| | | | | – | | ° |
| | | | | – | | ° |
| | – – | | | | – | |
| | | | | | – | |
| | – | | | | – | |
| | | | | | – | |
| | – | | | | – | |

## RECOMMENDED OPERAING CONDITIONS

| Symbol | Parameter | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | – | – | | ° |

## DC AND TRANSIENT CHARACTERISTICS

°

| Symbol | Parameter | $T_A$ = −40 to +85°C<br>$T_J$ = −40 to +125°C | | | Unit |
|---|---|---|---|---|---|
| | | Min. | Typ. | Max. | |
| **Type C Specific Parameters** | | | | | |
| | μ | | | | μ |
| | μ | | | | μ |

## DC AND TRANSIENT CHARACTERISTICS

| Symbol | Parameter | $T_A$ = −40 to +85°C<br>$T_J$ = −40 to +125°C | | | Unit |
|---|---|---|---|---|---|
| | | Min. | Typ. | Max. | |
| – | | | | | |
| – | | | | | |
| – | | | | | |

## TIMING PARAMETERS

| Symbol | Parameter | | $T_A$ = −40 to +85°C<br>$T_J$ = −40 to +125°C | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min. | Typ. | Max. | |
| | | | | – | | |
| | | | | – | | |
| | | | | – | | |
| | | | | – | | |

## IO SPECIFICATIONS

| Symbol | Parameter | $V_{DD}$ (V) |
|---|---|---|

# FUSB301

## I²C ADDRESS

**Table 3. FUSB301 I²C SLAVE ADDRESS**

| Name | Size (Bits) | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 | Bit 0 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

## REGISTER DEFINITIONS

**Table 4. REGISTER MAP**

| Address | Register Name | Type | RST Val | Bit 7 | Bit 6 | Bit 5 | Bit 4 | Bit 3 | Bit 2 | Bit 1 | Bit 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| × | | | | | | | | | | | |
| × | | | | | | | | | | | |
| × | | | | | | | | | | | |
| × | | | | | | | | | | | |
| × | | | | | | | | | | | |
| × – × | | | | | | | | | | | |
| × | | | | | | | | | | | |
| × | | | | | | | | | | | |
| × | | | | | | | | | | | |

**Table 7. CONTROL**

×

| Bit # | Name | Size (Bits) | Description |
|---|---|---|---|
| | | | |
| | | | **00: 35 ms min. in Unattached.Sink and 15 ms min. In Unattached.SOURCE** |
| | | | |
| | | | –<br>**01: 80 μA − Default USB Power**<br>μ –<br>μ – |
| | | | **1: Global interrupt mask to mask all interrupts** |

**Table 8. MANUAL**

×

**Table 10. MASK**

×

| Bit # | Name | Size (Bits) | Description |
|---|---|---|---|
| | | | |
| | | | |

**Table 11. STATUS**

**Table 13. INTERRUPT0**

×

| Bit # | Name | Size (Bits) | Description |
|---|---|---|---|
| | | | |
| | | | |

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**X2QFN10 1.60x1.20x0.37, 0.40P**

*FOR ADDITIONAL INFORMATION ON OUR
PB-FREE STRATEGY AND SOLDERING
DETAILS, PLEAS