

DIO3222A

Low-Power, USB2.0 High-Speed Switch

Features

- V_{CC} operation at 2.7V to 4.3V
- Low Con: 6.5pF Typical
- Low Ron: 6Ω Typical
- Low Power Consumption: 1μA Maximum
- Low I_{CCT} : 15μA Maximum
@ $V_{IN}=1.8V$, $V_{CC}=3.6V$
- -3dB Bandwidth: > 720MHz
- Packaged in Green
DQFN-10; MSOP-10 and QFN-10
- 8kV HBM ESD Rating
2kV CDM ESD Rating
- Power-Off/On Protection on Common port.
- D+/D- Pins Tolerate up to 5.25V

Applications

- Cell-Phone/PDA
- MP3/MP4/PMP
- STB/LCDTV

Descriptions

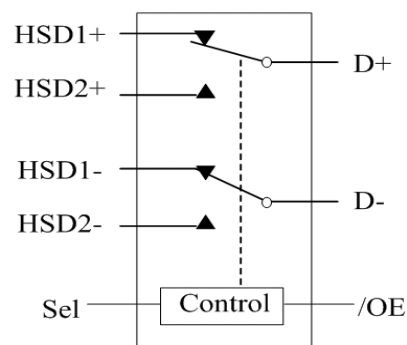
The DIO3222A is a low power, dual SPDT 2-port high-speed analog switch. It handles bi-directional signal flow and is optimized for switching a hi-speed (480Mbps) source or a full-speed (12Mbps) source.

DIO3222A has high channel-to-channel noise isolation and low bit-to-bit skew which allows it to pass high-speed differential signals with good signal integrity. Each switch offers little or no attenuation of the high-speed signals at the outputs.

The DIO3222A contains special circuitry on the D+/D- pins, which can tolerate up to 5.25V when the USB devices are either powered off or powered on.

DIO3222A is available in three type Green packages: DQFN-10, MSOP-10 and QFN-10.

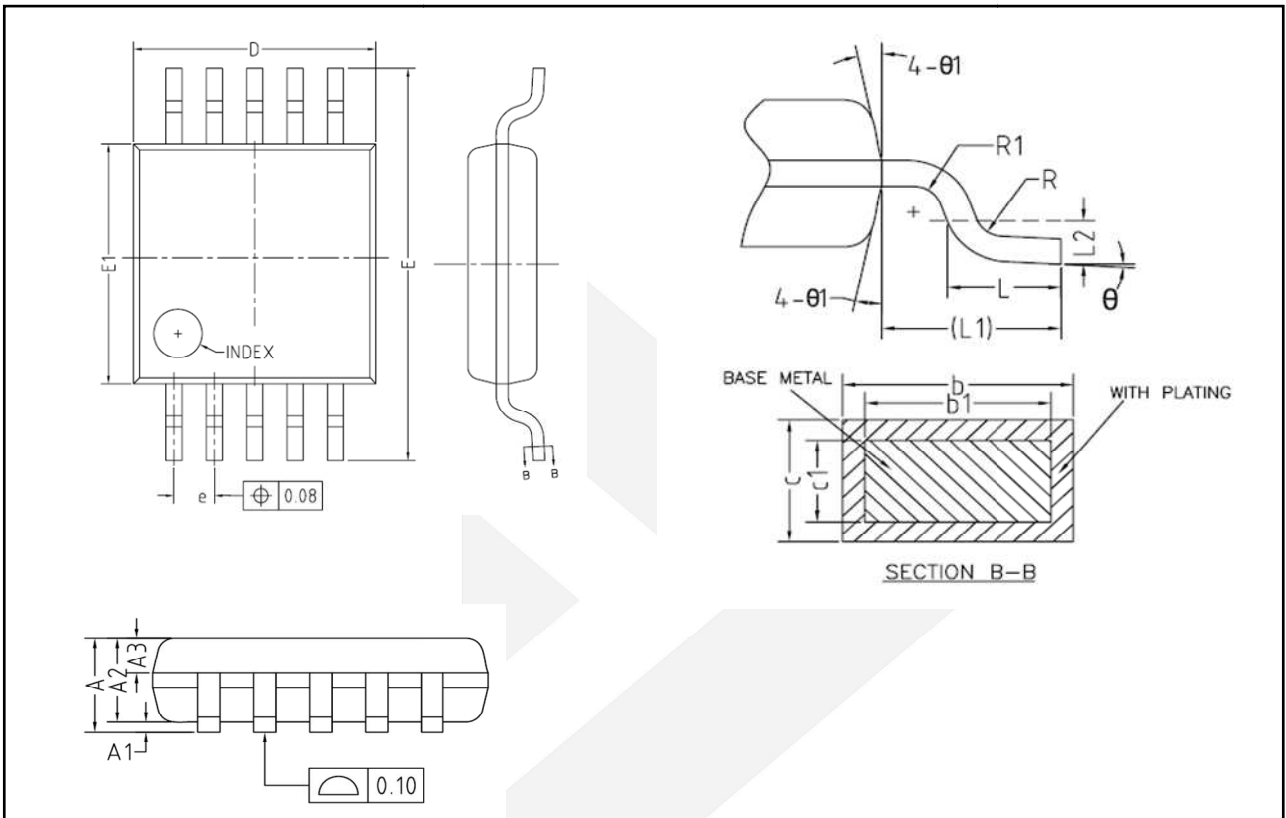
Block Diagram



Ordering Information

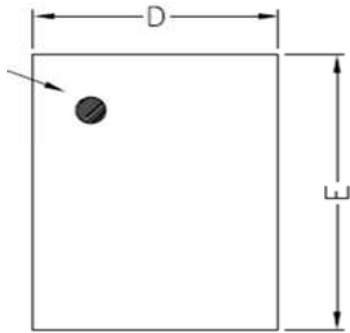
| Order Part Number | Top Marking | | T_A | | Package |
|-------------------|-------------|------------|--------------|---------|-------------------|
| DIO3222AMP10 | DIO3222 | Green/RoHS | -40 to +85°C | MSOP-10 | Tape & Reel, 3000 |
| DIO3222ALP10 | YWGZ | Green | -40 to +85°C | DQFN-10 | Tape & Reel, 3000 |
| DIO3222AQN10 | YWGZ | Green | -40 to +85°C | QFN-10 | Tape & Reel, 3000 |

Physical Dimensions: MSOP-10

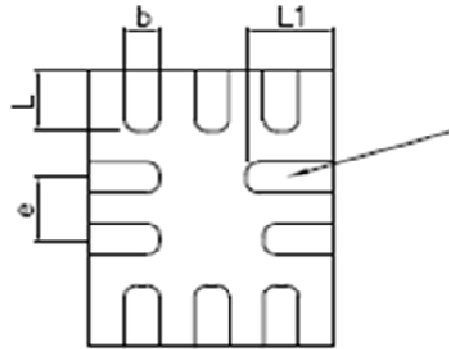


| Symbol | Min | Typ | Max |
|------------|---------|------|------|
| A | - | - | 1.10 |
| A1 | 0 | - | 0.15 |
| A2 | 0.75 | 0.85 | 0.95 |
| A3 | 0.25 | 0.35 | 0.39 |
| b | 0.18 | - | 0.27 |
| b1 | 0.17 | 0.20 | 0.23 |
| c | 0.15 | - | 0.20 |
| c1 | 0.14 | 0.15 | 0.16 |
| D | 2.90 | 3.00 | 3.10 |
| E | 4.70 | 4.90 | 5.10 |
| E1 | 2.90 | 3.00 | 3.10 |
| e | 0.40 | 0.50 | 0.60 |
| L | 0.40 | 0.60 | 0.80 |
| L1 | 0.95REF | | |
| L2 | 0.25BSC | | |
| R | 0.07 | - | - |
| R1 | 0.07 | - | - |
| θ | 0° | - | 8° |
| $\theta 1$ | 9° | 12° | 15° |

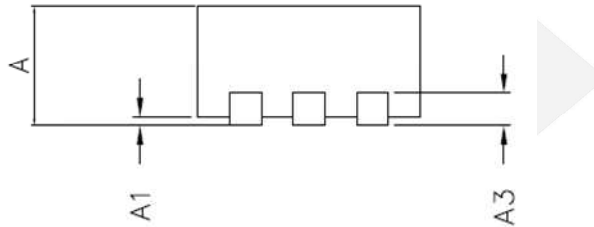
Physical Dimensions: DQFN-10



TOP VIEW

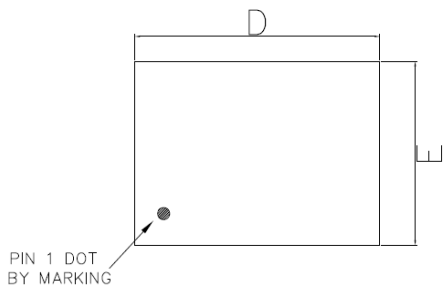


BOTTOM VIEW

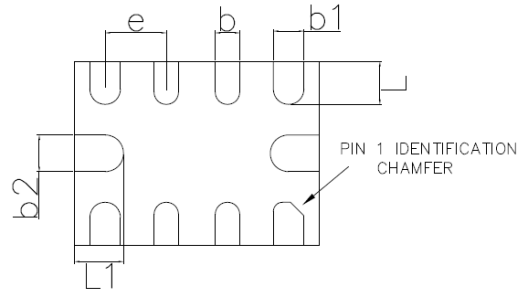


| COMMON DIMENSIONS(MM) | | | |
|-----------------------|---------------|------|------|
| PKG. | UT:ULTRA THIN | | |
| REF. | MIN. | NOM | MAX |
| A | 0.5 | 0.55 | 0.6 |
| A1 | 0 | | 0.05 |
| A3 | 0.15REF. | | |
| D | 1.35 | 1.4 | 1.45 |
| E | 1.75 | 1.8 | 1.85 |
| b | 0.15 | 0.2 | 0.25 |
| L | 0.3 | 0.4 | 0.5 |
| L1 | 0.4 | 0.5 | 0.6 |
| e | 0.4BSC | | |

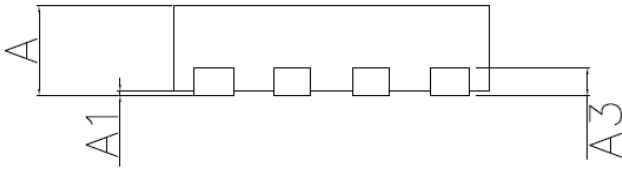
Physical Dimensions: QFN-10



TOP VIEW



BOTTOM VIEW



SIDE VIEW

| COMMON DIMENSIONS (UNITS OF MEASURE=MM) | | | |
|--|----------|------|------|
| Symbol | MIN | NOM | MAX |
| A | 0.50 | 0.55 | 0.60 |
| A1 | 0.00 | - | 0.05 |
| A3 | 0.15REF | | |
| D | 1.95 | 2.00 | 2.05 |
| E | 1.45 | 1.50 | 1.55 |
| b | 0.15 | 0.20 | 0.25 |
| b1 | 0.20 | 0.25 | 0.30 |
| b2 | 0.25 | 0.30 | 0.35 |
| L | 0.30 | 0.35 | 0.40 |
| L1 | 0.35 | 0.40 | 0.45 |
| e | 0.50 BSC | | |





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CONTACT US

Dioo is a professional design and sales corporation for high-quality and performance analog semiconductors. The company focuses on industry markets, such as, cell phone, handheld products, laptop, and medical equipments and so on. Dioo's product families include analog signal processing and amplifying, LED drivers and charger IC. Go to <http://www.dioo.com> for a complete list of Dioo product families.

For additional product information, or full datasheet, please contact with our Sales Department or Representatives.

