

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_{CC}T : 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

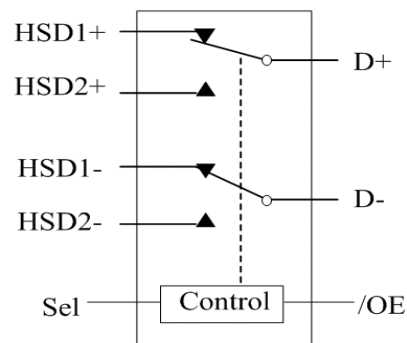
The DIO3222A is a low power, dual SPDT 2-port high-speed analog switch. It handles bi-directional signal flow and is optimized for switching a hi-speed (480Mbps) source or a full-speed (12Mbps) source.

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.

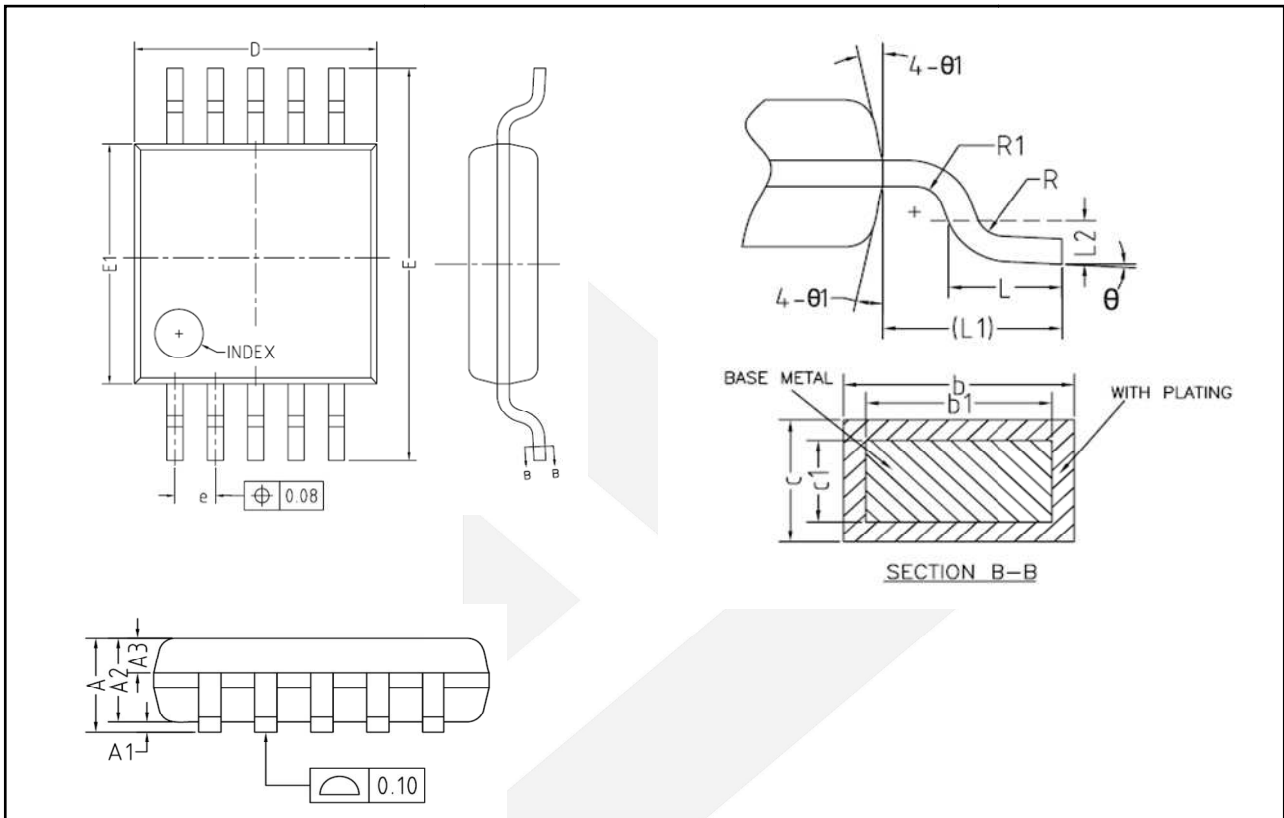
Block Diagram



Ordering Information

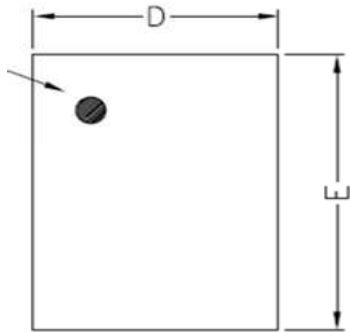
Order Part Number	Top Marking		T _A		Package
DIO3222AMP10	DIO3222	Green/RoHS	-40 to +85°C	MSOP-10	Tape & Reel, 3000
DIO3222ALP10	YWGZ	Green	-40 to +85°C	DQFN-10	Tape & Reel, 3000
DIO3222AQN10	YWGZ	Green	-40 to +85°C	QFN-10	Tape & Reel, 3000

Physical Dimensions: MSOP-10

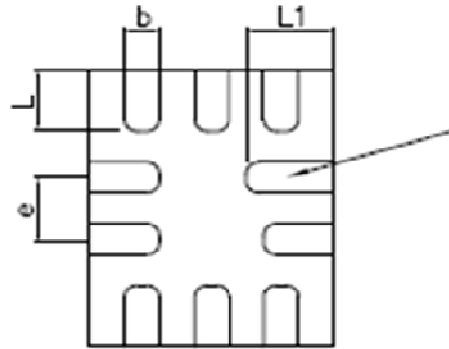


Symbol	Min	Typ	Max
A	-	-	1.10
A1	0	-	0.15
A2	0.75	0.85	0.95
A3	0.25	0.35	0.39
b	0.18	-	0.27
b1	0.17	0.20	0.23
c	0.15	-	0.20
c1	0.14	0.15	0.16
D	2.90	3.00	3.10
E	4.70	4.90	5.10
E1	2.90	3.00	3.10
e	0.40	0.50	0.60
L	0.40	0.60	0.80
L1	0.95REF		
L2	0.25BSC		
R	0.07	-	-
R1	0.07	-	-
θ	0°	-	8°
$\theta 1$	9°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

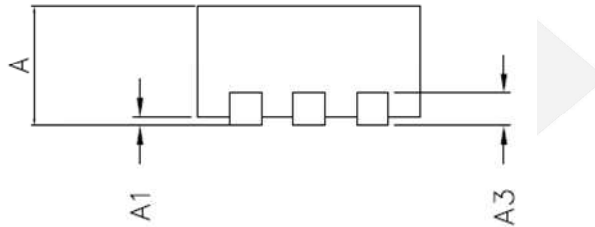
Physical Dimensions: DQFN-10



TOP VIEW

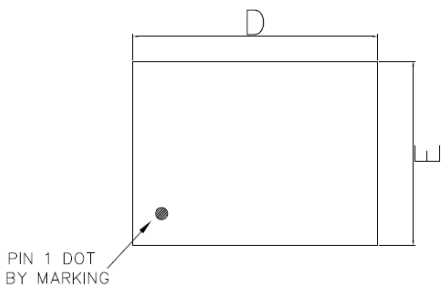


BOTTOM VIEW

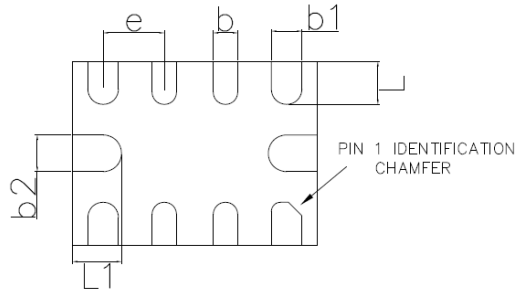


COMMON DIMENSIONS(MM)			
PKG.	UT:ULTRA THIN		
REF.	MIN.	NOM	MAX
A	0.5	0.55	0.6
A1	0		0.05
A3	0.15REF.		
D	1.35	1.4	1.45
E	1.75	1.8	1.85
b	0.15	0.2	0.25
L	0.3	0.4	0.5
L1	0.4	0.5	0.6
e	0.4BSC		

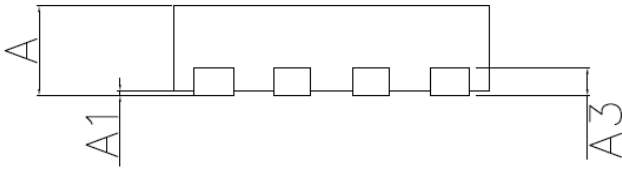
Physical Dimensions: QFN-10



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		

