



SGM7229

High-Speed USB 2.0 (480Mbps) DPDT Analog Switch

GENERAL DESCRIPTION

The SGM7229 is a DPDT (double-pole/double-throw) analog switch. It operates from a 1.8V to 5.5V single power supply. Each switch of the SGM7229 is bidirectional, which can ensure that the high speed signals have little or no attenuation at the outputs.

The SGM7229 features high speed, low bit-to-bit skew and wide bandwidth. These high performances make it very suitable for multiple applications, such as cellular phones and computer peripherals, etc.

The SGM7229 has power-off and power-on protections. Because of the special circuitry on the D+/D- pins, the device will not be damaged even if V_{BUS} short-circuit occurs during data transmission. In addition, it can prevent accidental from leaking and ensure system reliability under power-down and over-voltage conditions.

The SGM7229 is available in Green MSOP-10 and UTQFN-1.8×1.4-10L packages. It operates over an ambient temperature range of -40°C to +85°C.

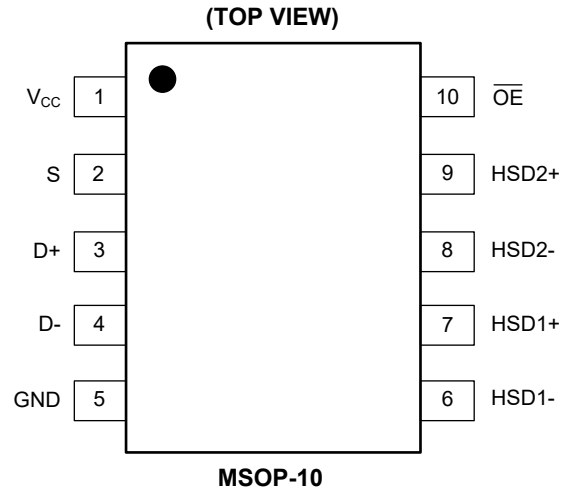
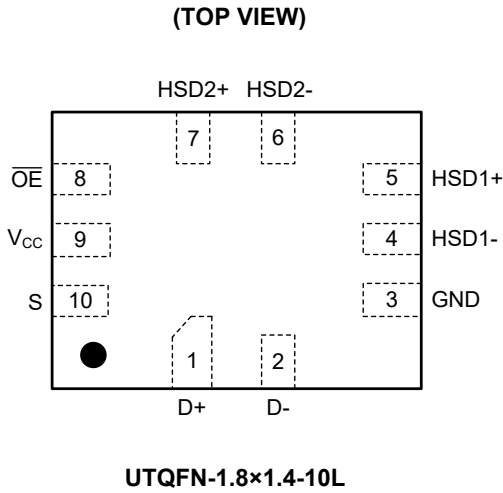
FEATURES

- **Single Supply Voltage Range: 1.8V to 5.5V**
- **On-Resistance: 6Ω (TYP) at 3V**
- **High Off-Isolation: -26dB ($R_L = 50\Omega$, $f = 250\text{MHz}$)**
- **Low Crosstalk: -20dB ($R_L = 50\Omega$, $f = 250\text{MHz}$)**
- **-3dB Bandwidth: 850MHz**
- **Fast Switching Times at $V_{CC} = 3.3V$:**
 - $t_{ON} = 30\text{ns}$
 - $t_{OFF} = 18\text{ns}$
- **Break-Before-Make Switching**
- **Rail-to-Rail Input and Output Operation**
- **Power-Off and Power-On Protections**
- **-40°C to +85°C Operating Temperature Range**
- **Available in Green UTQFN-1.8×1.4-10L and MSOP-10 Packages**

APPLICATIONS

Cellular Phones
Digital Cameras
Portable Equipment
Computer Peripherals
Battery-Powered Systems
Routes Signals for USB 2.0 Full-Speed

PIN CONFIGURATIONS

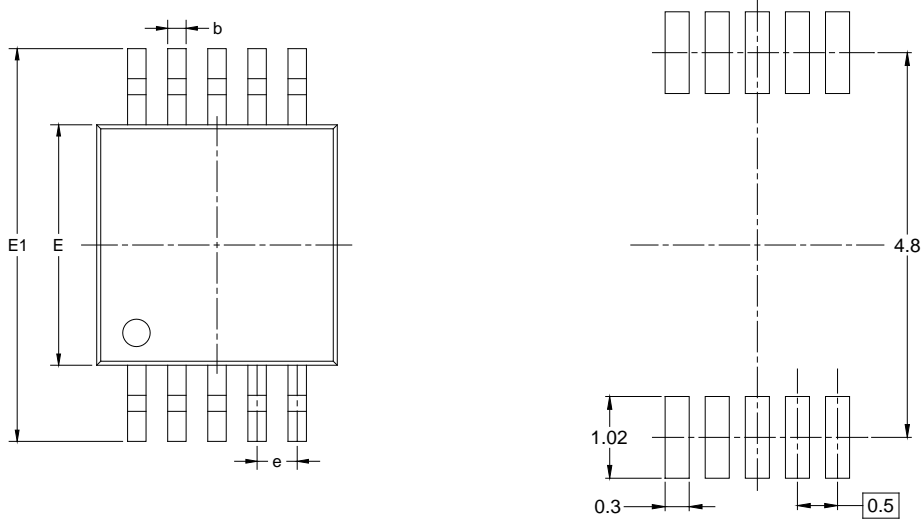


PIN DESCRIPTION

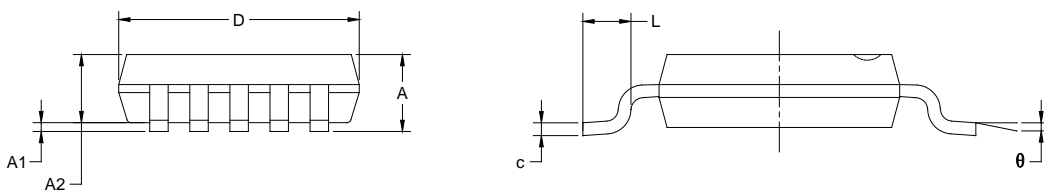
PIN		NAME	FUNCTION
UTQFN-1.8x1.4-10L	MSOP-10		
1	3	D+	USB Data Bus.
2	4	D-	USB Data Bus.
3	5	GND	Ground.
4	6	HSD1-	Multiplexed Source Input.
5	7	HSD1+	Multiplexed Source Input.
6	8	HSD2-	Multiplexed Source Input.
7	9	HSD2+	Multiplexed Source Input.
8	10	\overline{OE}	Output Enable Control Pin.
9	1	V _{CC}	Positive Power Supply Pin.
10	2	S	Select Input Pin.

PACKAGE OUTLINE DIMENSIONS

MSOP-10



RECOMMENDED LAND PATTERN (Unit: mm)



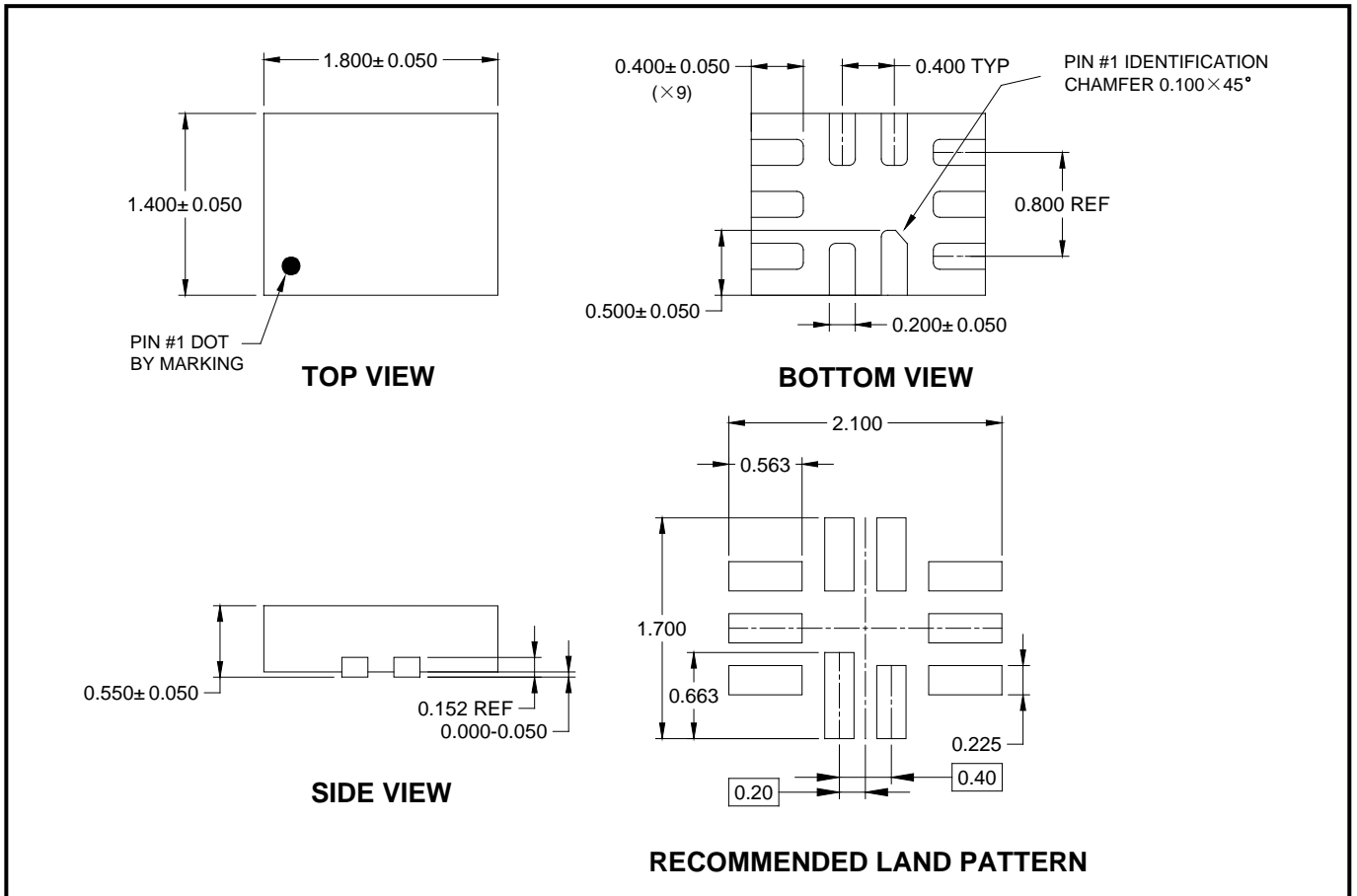
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	0.820	1.100	0.032	0.043
A1	0.020	0.150	0.001	0.006
A2	0.750	0.950	0.030	0.037
b	0.180	0.280	0.007	0.011
c	0.090	0.230	0.004	0.009
D	2.900	3.100	0.114	0.122
E	2.900	3.100	0.114	0.122
E1	4.750	5.050	0.187	0.199
e	0.500 BSC		0.020 BSC	
L	0.400	0.800	0.016	0.031
θ	0°	6°	0°	6°

NOTES:

1. Body dimensions do not include mode flash or protrusion.
2. This drawing is subject to change without notice.

PACKAGE OUTLINE DIMENSIONS

UTQFN-1.8x1.4-10L

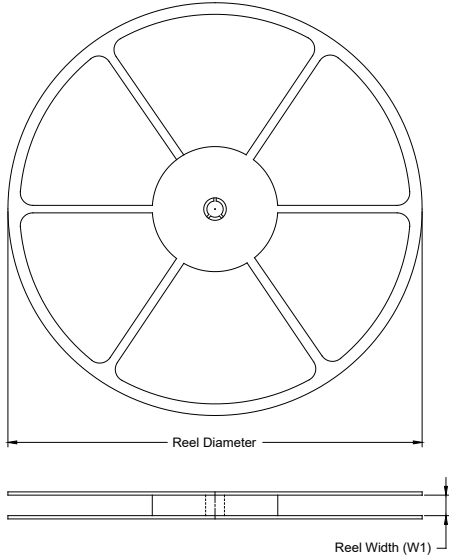


NOTES:

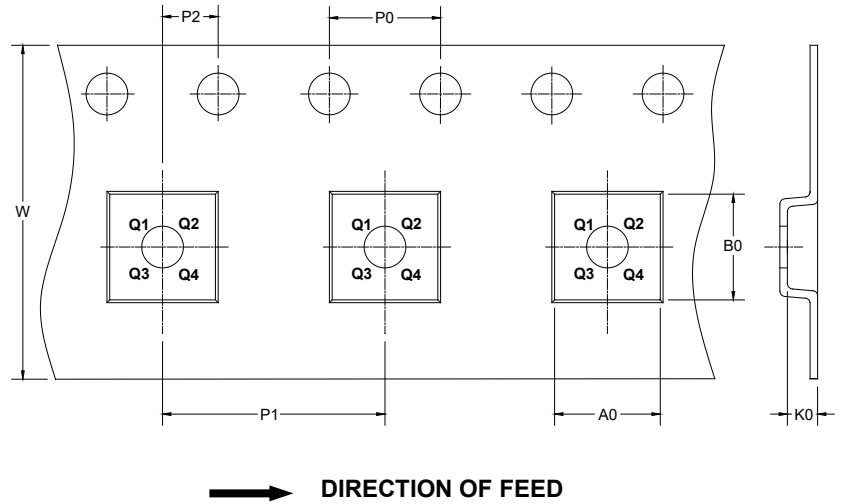
1. All linear dimensions are in millimeters.
2. This drawing is subject to change without notice.

TAPE AND REEL INFORMATION

REEL DIMENSIONS



TAPE DIMENSIONS



NOTE: The picture is only for reference. Please make the object as the standard.

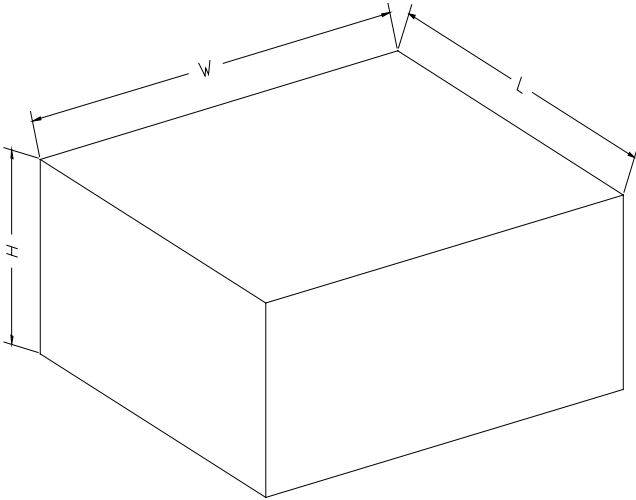
KEY PARAMETER LIST OF TAPE AND REEL

Package Type	Reel Diameter	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	W (mm)	Pin1 Quadrant
UTQFN-1.8×1.4-10L	7"	9.0	1.75	2.10	0.70	4.0	4.0	2.0	8.0	Q1
MSOP-10	13"	12.4	5.20	3.30	1.20	4.0	8.0	2.0	12.0	Q1

DD0001

PACKAGE INFORMATION

CARTON BOX DIMENSIONS



NOTE: The picture is only for reference. Please make the object as the standard.

KEY PARAMETER LIST OF CARTON BOX

Reel Type	Length (mm)	Width (mm)	Height (mm)	Pizza/Carton
7" (Option)	368	227	224	8
7"	442	410	224	18
13"	386	280	370	5

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