

Description

The PJ3002SE is the USB dedicated charging port controller IC. The IC is used to facilitate charging procedure when most of the mainstream handheld devices are detected. The PJ3002SE is suitable for all the charger products using USB interface like power bank, wall adapter and even MID device with OTG function. The IC is provided with enhanced ESD protection up to +/-8kV with application on D+/D- Pins.

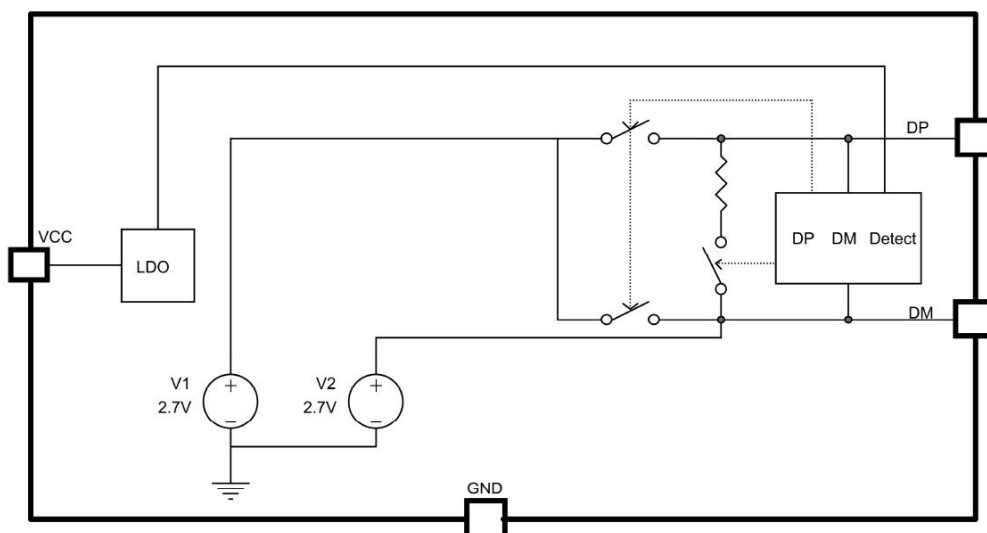
Features

- Supports USB DCP Shorting D+ Line to D- Line per USB Battery Charging Specification, Revision 1.2 (BC1.2)
- Supports Shorted Mode (Shorting D+ Line to D-Line) per Chinese Telecommunication Industry Standard YD/T 1591-2009
- Supports USB DCP Applying 2.7 V on D+ Line and 2.7 V on D- Line
- Supports USB DCP Applying 1.2 V on D+ and D- Lines
- Automatically Switch D+ and D- Lines Connections for an Attached Device
- Operating Range: 4.5 V to 5.5 V
- Available in SOT-23-5 Package

Applications

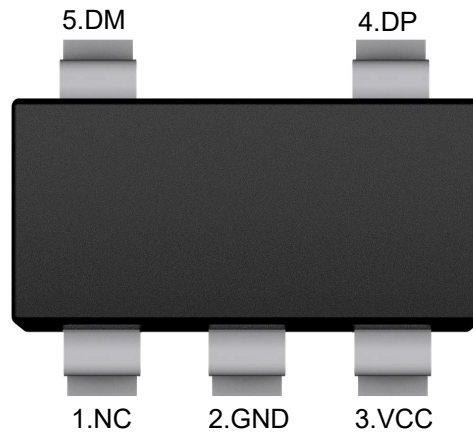
- Power bank
- USB Ports (Hosts and Hubs)
- Wall Charging Adapters

Block Diagram



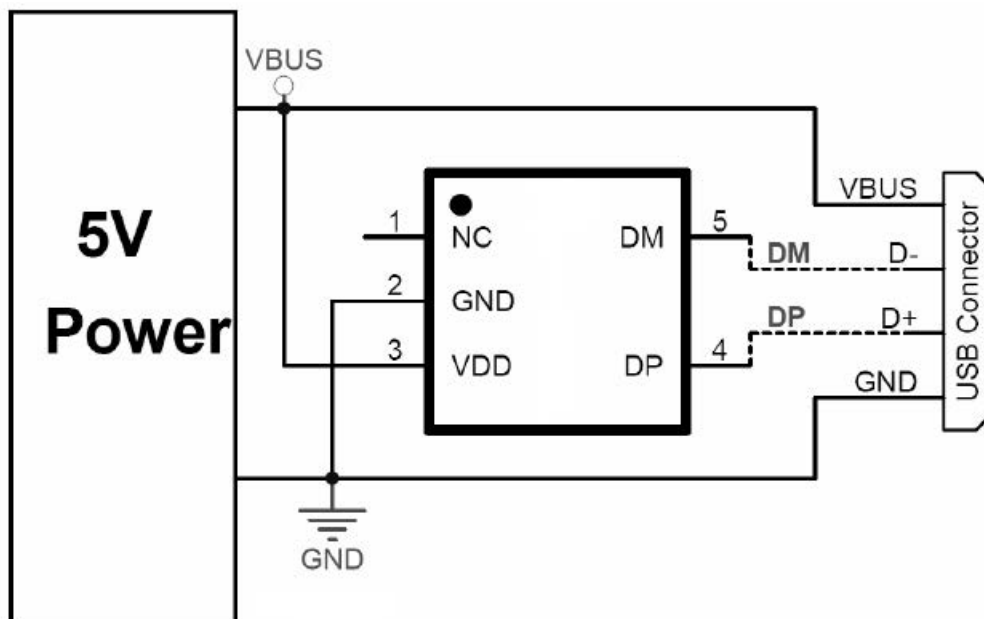
Pin Function And Descriptions

SOT-23-5



Pin	Name	Description
1	NC	No Connected
2	GND	Ground
3	VCC	Power supplier
4	DP	USB positive data-channel to external USB device
5	DM	USB negative data-channel to external USB device

Application Circuits





Absolute Maximum Ratings (at $T_A = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
VIN to GND		-0.3 to +7	V
DP1,DM1,DP2,DM2 to GND		-0.3 to +6	V
Operating Junction Temperature		-40 to +125	$^\circ\text{C}$
Storage Junction Temperature		-55 to +150	$^\circ\text{C}$
Junction to Ambient Thermal Resistance	$R_{\theta JA}$	180	$^\circ\text{C/W}$
Junction to board thermal resistance	$R_{\theta JB}$	120	$^\circ\text{C/W}$
Junction to case thermal resistance	$R_{\theta JC}$	42	$^\circ\text{C/W}$

ESD Ratings

		Value	Unit
Electrostatic discharge	Human-body model (HBM)	± 8000	V

Recommended Operating Conditions

	Symbol	Min.	Max.	Unit
Input voltage of VCC	V_{CC}	4.5	5.5	V
DP1,DP2 data line input voltage	V_{DP}	0	5.5	V
DM1,DM2 data line input voltage	V_{DM}	0	5.5	V
DP1,DP2 Continuous sink or source current	I_{DP}	0	± 10	mA
DM1,DM2 Continuous sink or source current	I_{DM}	0	± 10	mA



Electrical Characteristics

(T_J=25°C. V_{CC}=5V, unless otherwise specified)

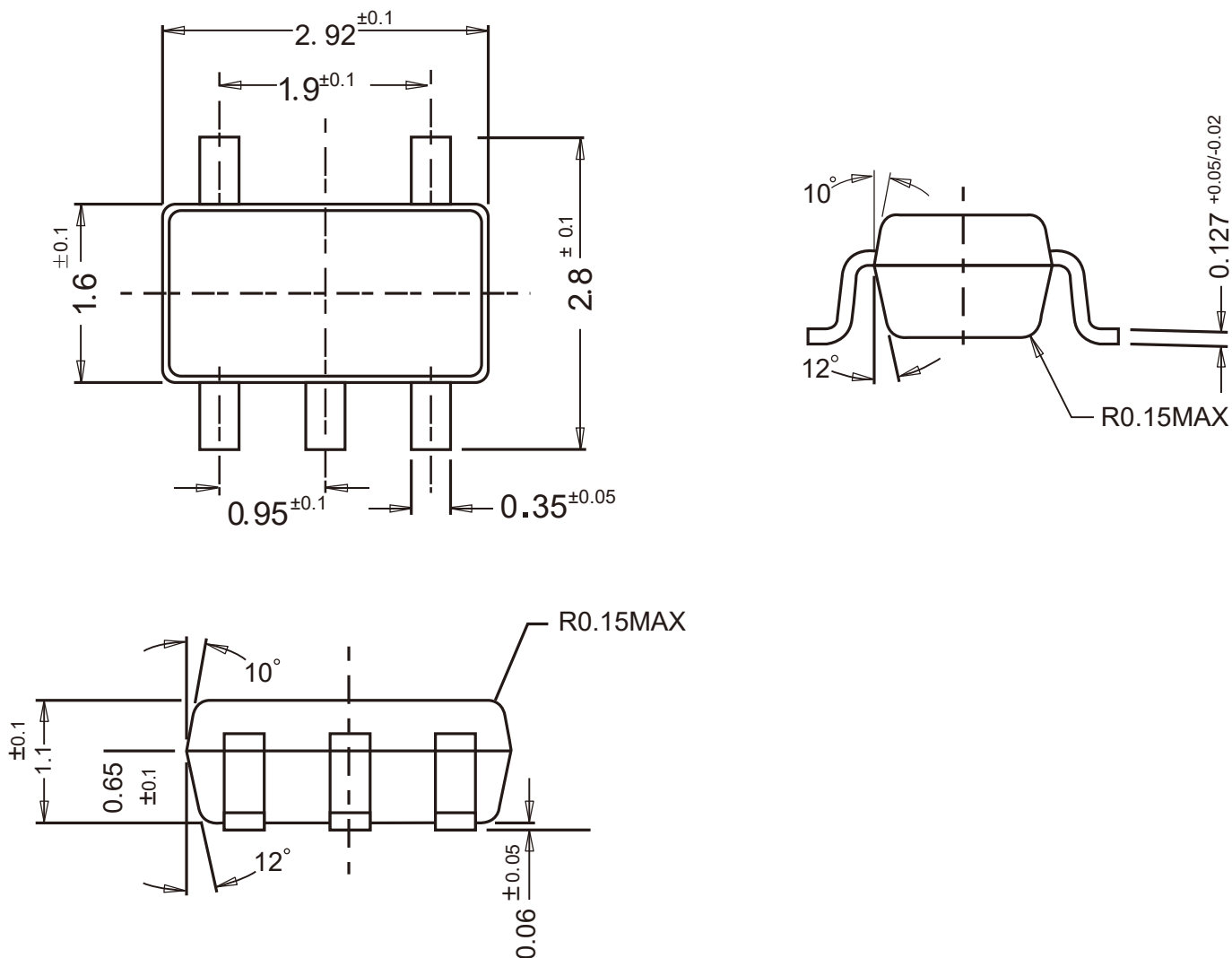
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Units
Input Voltage	VCC		4.3	5	5.5	V
UVLO Voltage	V _{UVLO}		3.1	3.7	4.3	V
UVLO Hysteresis				0.1		V
Quiescent Current	I _{CCQ}	VCC=5V		220		uA
BC 1.2 DCP Mode						
DP,DM Short Resistance	R _{DPM}			160	200	Ω
Resistance between DPX and GND	R _{DPG}	V _{DPX} =0.8V		650	1000	KΩ
Resistance between DMX and GND	R _{DMG}	V _{DMX} =0.8V		650	1000	KΩ
DPx threshold of Goes to divider mode	V _{DPX_TH}			300		mV
Divider Mode						
DPx output voltage	V _{DPX_2.7}		2.6	2.7	2.8	V
DMx output voltage	V _{DMX_2.7}		2.6	2.7	2.8	V
DPx output impedance	R _{DPX}		24	30	36	KΩ
DMx output impedance	R _{DMX}		24	30	36	KΩ
1.2V /1.2V Mode						
DPX output voltage	V _{DPX_1.2}		1.12	1.2	1.28	V
DMX output voltage	V _{DMX_1.2}		1.12	1.2	1.28	V

Note: 1. DPX Stands for DP1 or DP2, DMX Stands for DM1 or DM2

Package Outline

SOT-23-5

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ3002SE	SOT-23-5	3,000PCS/Reel&7inches

单击下面可查看定价，库存，交付和生命周期等信息

[>>PJSEMI\(平晶微\)](#)