

USB Type-C Controller for Adapters with BC1.2 Auto-Detection and Adjustable Over Current Protection

Preliminary

DESCRIPTION

The UC2608 is an autonomous Source only Type-C controller optimized power chargers and mobile chargers. It broadcasts the available current of the charger over CC1/CC2 using the USB Type-C standard and prevents VBUS from being asserted until a valid connection has been verified. It can be used for up to 16.5W charging using Type-C protocols.

UC2608 integrated automatic USB charger identification circuit allow mobile power supply, In-Car charger, USB wall adapters, travel chargers, and other dedicated chargers to identify themselves as a USB dedicated charger to USB devices, like Apple charger to Apple products, Samsung charger to Samsung Galaxy Tab & Smart Phone, and BC1.2 charger to Huawei, Xiaomi and other legacy D+/D- short detection devices.

UC2608 can achieve adjustable over current protection by adjust R_S , R_1 and R_2 .

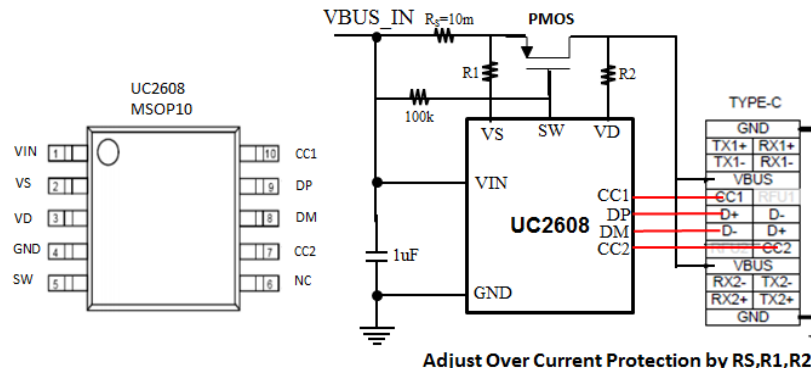
FEATURES

- 3.0V~5.5V Single Supply Operation.
- Fully Autonomous Type-C Controller Support Type-C Version 1.2.
- VBUS Switch Control.
- Adjustable over current protection.
- Support Type-C VBUS 3.0A Current
- Automatic USB charger Identification Circuit.
- Support Apple® Devices fast charging. (Apple® 2.1A / 2.4A mode)
- Support Samsung Galaxy Tab Devices fast Charging.
- Support BC1.2 & YD/T 1591-2009 Charging Spec.
- Available in MSOP10 Package.

APPLICATIONS

- Power Adapter
- Travel Charger
- Wall USB Charger
- Power Bank

UC2608 MSOP10 PACKAGE and SIMPLIFIED APPLICATION



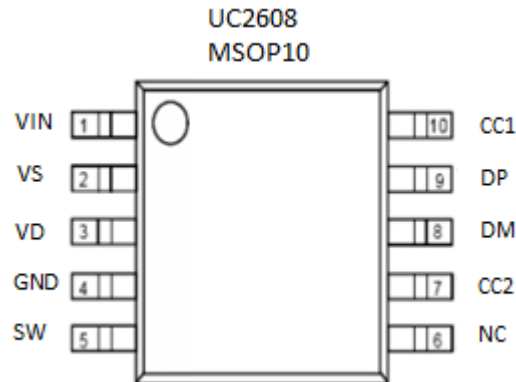
ORDERING INFORMATION

Part Number	Package Type	Package Qty	Op Temp(°C)
UC2608	MSOP10	3000	-40~85

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PINOUT



PIN FUNCTIONS

NO.	NAME	TYPE ⁽¹⁾	DESCRIPTION
1	VIN	P/I	Power supply/Input voltage connected to Power Switch; connect a 1 μ F or greater ceramic capacitor from IN to GND as close to the IC as possible
2	VS	I	Sense Voltage, connect source of PMOS
3	VD	I	Connect drain of PMOS
4	GND	G	Ground
5	SW	O/I	Output Control for VBUS
6	NC	NC	No Connection
7	CC2	O/I	Analog input/output that connects to the Type-C receptacle CC2 pin
8	DM	O/I	DM data line to connector, input for hand-shake voltage from portable equipment high impedance while disabled
9	DP	O/I	DP data line to connector, output for hand-shake voltage to portable equipment, high impedance while disabled
10	CC1	O/I	Analog input/output that connects to the Type-C receptacle CC1 pin

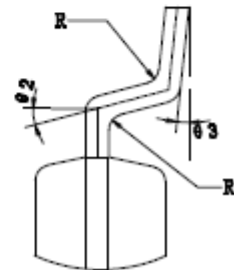
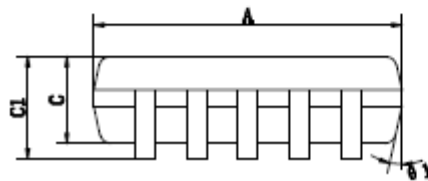
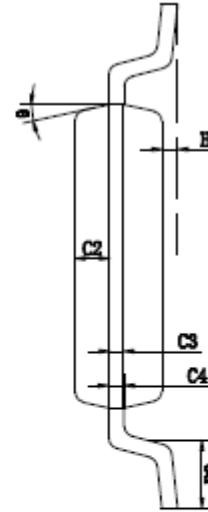
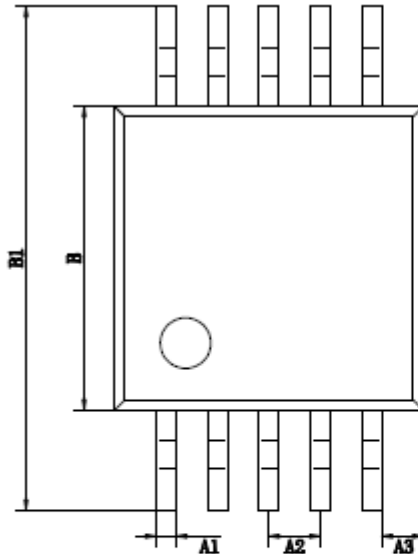
(1) G = Ground, I = Input, O = Output, P = Power

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PACKAGE INFORMATION

MSOP10



标注	尺寸	最小(mm)	最大(mm)	标注	尺寸	最小(mm)	最大(mm)
A		2.90	3.10	C3		0.152	
A1		0.18	0.25	C4		0.15	0.23
A2		0.50TYP		H		0.02	0.15
A3		0.40TYP		θ		15° TYP4	
B		2.90	3.10	θ 1		12° TYP4	
B1		4.70	5.10	θ 2		14° TYP	
B2		0.45	0.75	θ 3		0° ~ 6°	
C		0.75	0.95	R		0.16TYP	
C1		--	1.10	R1		0.16TYP	
C2		0.828TYP					