



LCS4_0.1 series

Wide Input Non-Isolated & Regulated, Single Output

Switching Regulator

- ⊕ (Boost + linear) Switching Regulator
- ⊕ Low Profile
- ⊕ 0.65V to 3.6V Operating Input Range
- ⊕ Efficiency up to 94%
- ⊕ Vin > Vout Down Mode Operation (linear Mode)
- ⊕ Short Circuit Protection
- ⊕ No Heat Sink Required
- ⊕ Low Ripple and Noise

This Switching Regulator is a cutting-edge power solution designed for optimal performance and versatility. With its compact and low-profile design (measuring just 11.6mm x 6.0mm x 10.2mm), this regulator is perfect for space-constrained applications. It offers an impressive operating input range of 0.65V to 3.6V, ensuring compatibility with a wide range of power sources. Experience exceptional efficiency of up to 94%, delivering power with maximum energy conservation.



Common specifications	
Short circuit protection:	Continuous, auto-recovery
Temperature rise at full load:	20°C max.
Cooling:	Free air convection
Operation temperature range:	-55°C ~ +125°C
Storage temperature range:	-55°C ~ +125°C
Lead temperature:	300°C/10 sec max.
Operating case temperature:	+100°C max.
Temperature coefficient:	-40°C to +85°C ambient 0.025%/°C typ.
Storage humidity range:	< 95%
MTBF (using MIL-HDBK-217F):	+25°C 59600x10 ³ hours +90°C 5620x10 ³ hours
Packing quantities:	42pcs per Tube
Case material:	Non Conductive Black Plastic UL94-V0
Potting material:	Epoxy UL94-V0
CTRL ON/OFF	ON Open or 0.7V~Vin OFF 0V or <0.1V
Weight:	1.3g

Output specifications					
Item	Test conditions	Min	Typ	Max	Units
Output voltage accuracy	Vin=1.2V to 3.6V at full load			±3	%
Output Current	0-100mA				
Line voltage regulation	Vin=1.2V to 3.6V at full load			0.5	%
Load regulation	10 to 100% full load at Vin=1.5V			1	%
Ripple + Noise	Vin=1.5VDC at full load			20	mVp-p
Input Voltage Range (absolute)	0.65-3.6VDC				
Switching frequency			1200		KHz
No load input current	Vin =1.5VDC at 0% load		100		µA
Thermal shutdown	Internal IC junction		150		°C
Max capacitance load				220	µF

Note:

1. All specifications measured at TA = 25°C, humidity <75%, nominal input voltage and rated output load unless otherwise specified.
2. Only typical models listed. If you need other model, please confirm the power, input voltage and output voltage, and then phone us.

Example:

LCS4_1.8-0.1
LC = Series; S4 = SIP4; 1.8 = 1.8Vout; 0.1 = 0.1A

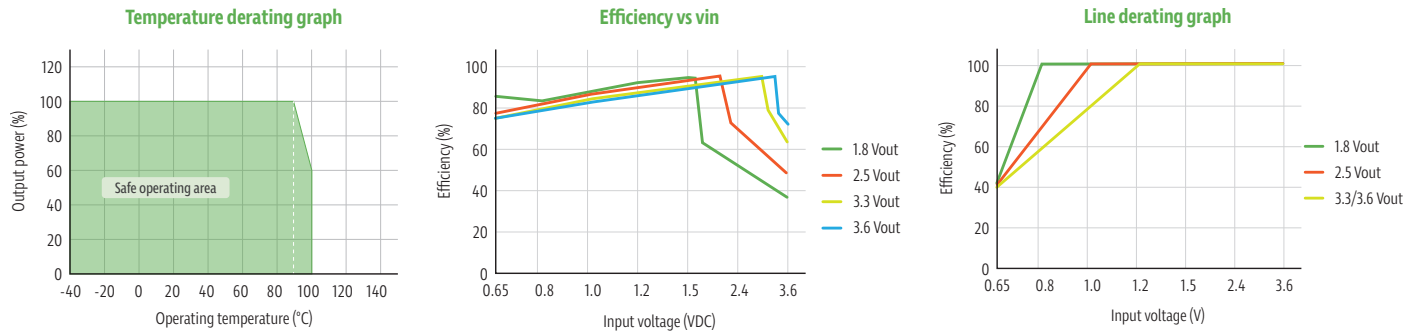
Product Selection Guide

Part Number	Input Voltage Range [VDC]	Output Voltage [VDC]	Output Current [A]	Efficiency typ. [1.5VDC Nominal]	Max capacitive load
LCS4_1.8-0.1	0.65-3.6 (0.65-0.8)	1.8	0.1	97	220µF
LCS4_2.5-0.1	0.65-3.6 (0.65-1.0)	2.5	0.1	96	220µF
LCS4_3.3-0.1	0.65-3.6 (0.65-1.2)	3.3	0.1	94	220µF
LCS4_3.6-0.1	0.65-3.6 (0.65-1.2)	3.6	0.1	94	220µF

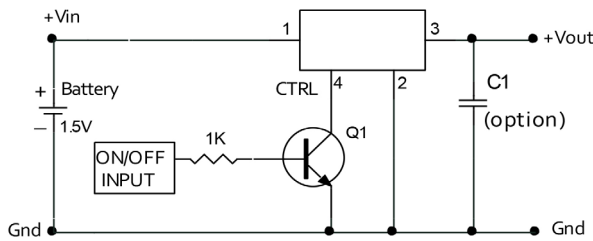
LC78_0.1 series

Wide Input Non-Isolated & Regulated, Single Output

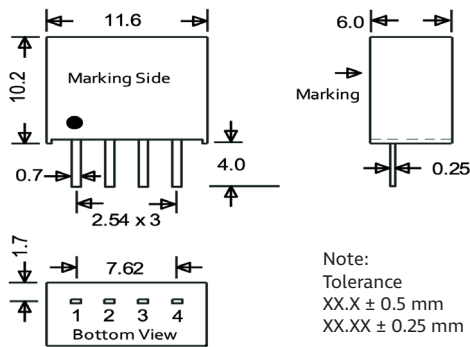
Typical characteristics



Standard application circuit



Mechanical dimension



PIN Connection	
PIN	Function
1	+Vin
2	GND
3	+Vout
4	CTRL

Tube outline dimensions

