

Low Noise Low-Dropout Regulator with very low ESR output Capacitor

Features

- Low dropout voltage
 - 160mV @ 100mA
 - 400mV @ 200mA
- Guaranteed output current
 - 250mA @ $V_{out}=5V$
- High output voltage accuracy
 - 1.5V ~ 1.95V $\pm 3\%$
 - 2.0V ~ 5.0V $\pm 2\%$
- Custom output voltage
 - 1.5V ~ 5.0V
 - in 0.1V increment
- Low Power Consumption
 - 70 μ A (Typ.) @ $V_{out} = 3.0V$
- Input stability
 - 0.2%V (Typ.)
- Operating temperature
 - 40 °C ~ +70 °C
- Stable with low ESR output capacitor
- Reverse battery protection
- Current Limit

Applications

- Battery powered equipment
- Palmtop/Laptop Computer
- Personal Digital Assistant
- Portable Multimedia Player
- Reference voltage

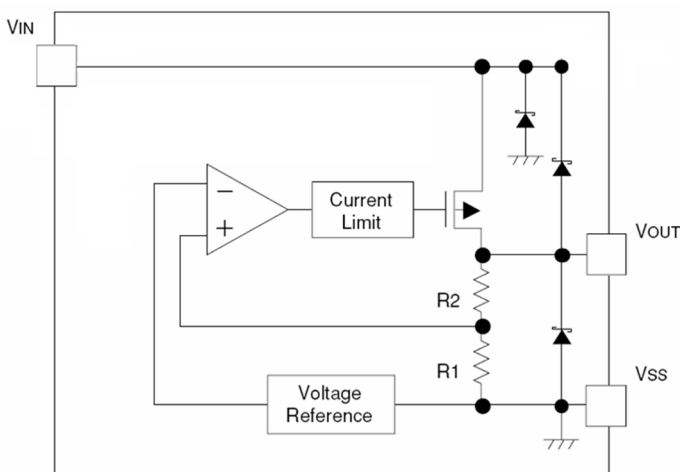
Available Packages

- SOT-23-5 (150mW)

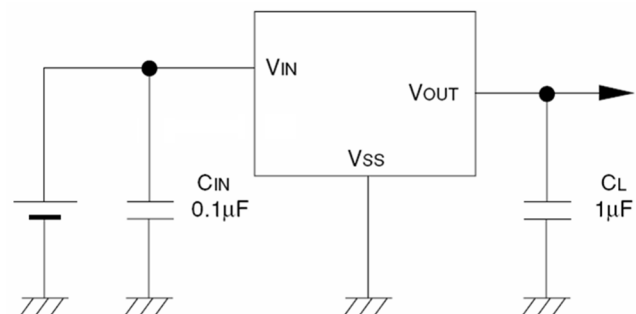
General Description

The CS7R3204 series are highly precise, positive voltage LDO regulators manufactured using CMOS processes. The device achieves high ripple rejection and low dropout with excellent output voltage tracking speed. The output voltage is selectable in 100mV increments within a range of 1.5V to 5.0V. The device is also compatible with low ESR ceramic capacitors which give added output stability. This stability can be maintained even during load fluctuations due to the excellent transient response of the device. The device has an integrated current limiter, which also operates as a short protection for the output pin, and reverse battery protection circuitry.

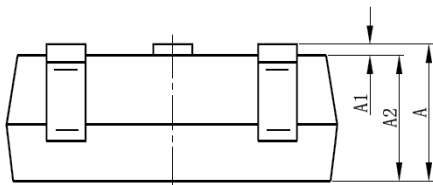
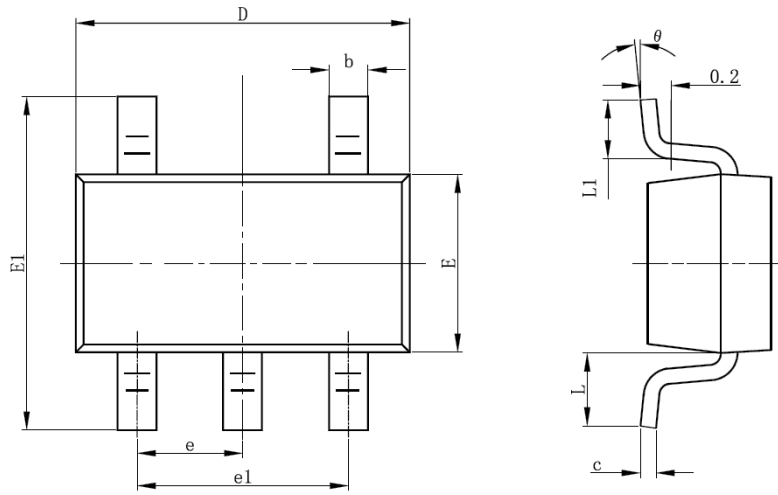
Block Diagram



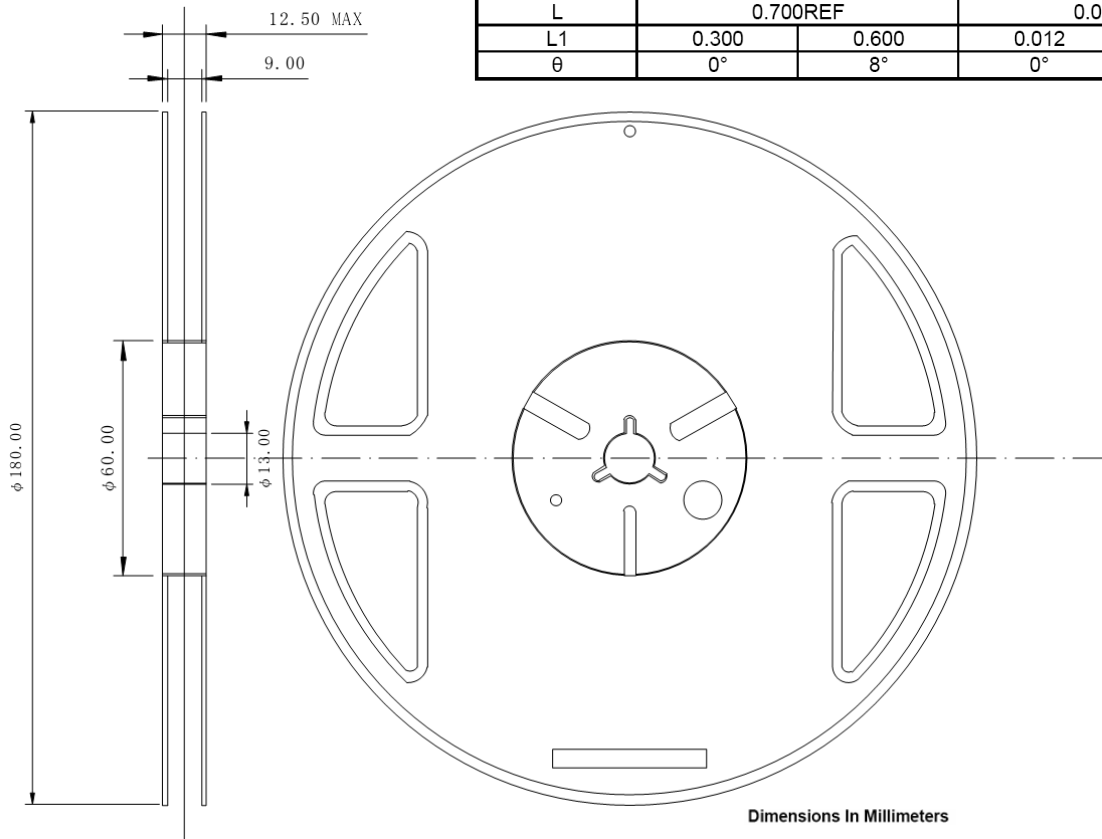
Typical Application



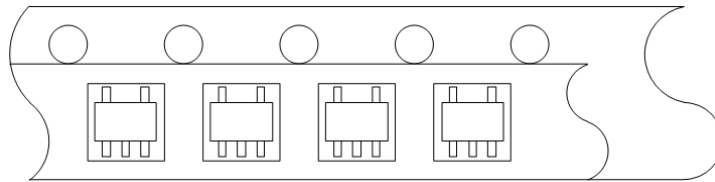
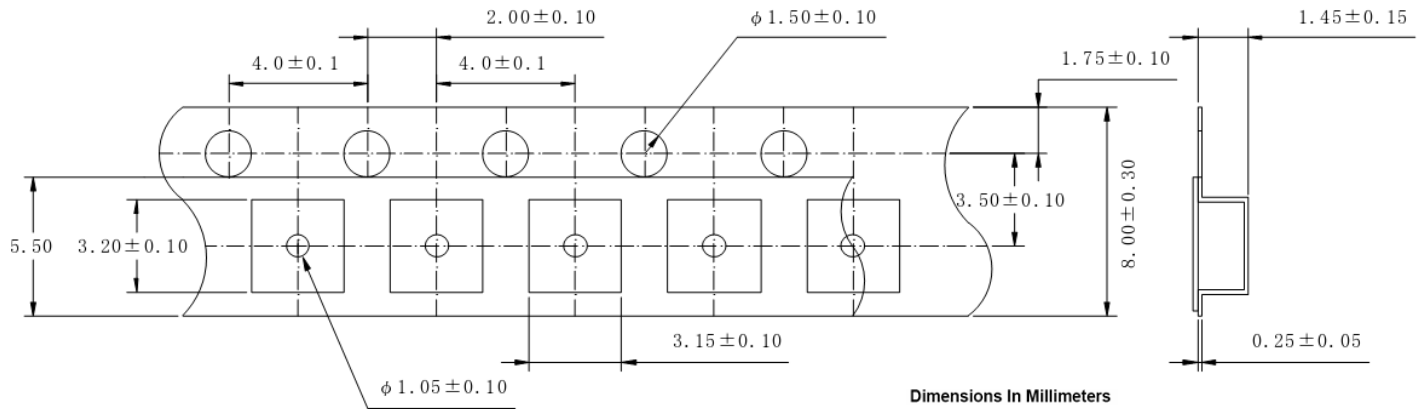
▪ SOT-23-5 package and reel dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.400	0.012	0.016
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.700REF		0.028REF	
L1	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°



▪ SOT-23-5 Taping



▪ S Type : standard

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