

MC33762

LDO Regulator, 80 mA, 1 V, Dual Output, High PSRR, Low Noise, with On/Off Control

Product Overview

For complete documentation, see the data sheet.

The MC33762 is a dual low dropout (LDO) linear voltage regulator featuring excellent noise performances. Thanks to its innovative design, the circuit reaches an impressive 40 μ V_{RMS} noise level without an external bypass capacitor. Housed in a small μ 8 package, this linear voltage regulator represents the ideal designer's choice when space and noise are at premium.

The absence of external bandgap capacitor accelerates the response time to a wake-up signal and keeps it within 40 μ s, making the MC33762 LDO linear voltage regulator a natural candidate in portable applications. The MC33762 also hosts a novel architecture which prevents excessive undershoots in the presence of fast transient bursts, as in any bursting systems. Finally, with a static line regulation better than -75dB, it naturally shields the downstream electronics against choppy lines.

Features

- Nominal Output Current of 80mA with a 100mA Peak Capability
 - Ultra Low-Noise: 150nV/sq. root Hz @ 100Hz, 40mVRMS 100Hz - 100kHz Typical, I_{out} = 60mA, C_o=1mF
 - Fast Response Time from OFF to ON: 40ms Typical
 - Ready for 1.0 V Platforms: ON with a 900 m V High Level
 - Typical Dropout of 90mV @ 30mA, 160mV @ 80mA
 - Ripple Rejection: 70dB @ 1kHz
 - 1.5% Output Precision @ 25°C
 - Thermal Shutdown
 - V_{out} Available at 2.5 V, 2.8 V, and 3.0 V
 - Separate Dice for Each Regulator Provides Maximum Isolation Between Regulators
- For more features, see the data sheet

Applications

- Noise sensitive circuits: VCOs RF stages etc.
- Bursting systems (TDMA phones)
- All battery operated devices

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V _o (V)	I _o Typ (A)	V _i Min (V)	V _i Max (V)	V _{DO} Typ (V)	I _o Typ (mA)	PSRR (dB)	Noise (μ V _r , ms)	Enable	PowerGood	Application	Package Type
MC33762DM-2525RG	0.48		Active	Dual	Positive	2.5	0.08	2.7	7	0.16	0.18	70	35	No	No	Industrial	Micr08
MC33762DM-2828RG	0.48		Active	Dual	Positive	2.8	0.08	2.7	12	0.16	0.18	70	35	No	No	Industrial	Micr08
MC33762DM-3030RG	0.48		Active	Dual	Positive	3	0.08	2.7	12	0.16	0.18	70	35	No	No	Industrial	Micr08