

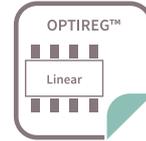


Product Brief

TLT807B0EPV

OPTIREG™ Linear voltage regulator for 24 V applications

Low dropout adjustable stand-by linear voltage regulator with overvoltage protection



The TLT807B0EPV is a 70 mA low dropout linear voltage regulator with enable feature. The 70 mA regulator has an adjustable output voltage and is available in a TSDSO-14 package.

The wide input voltage range and the low quiescent current make it perfectly suitable for supply systems connected permanently to the battery. The overvoltage protection feature allows for the device to be used in 24 V automotive applications (e.g. trucks, commercial vehicles etc.). With a 58 V load dump capability the device is perfectly suited to supply loads in stand-by mode in 24 V applications.

The TLT807B0EPV has an integrated enable function and can be switched on and off via the enable pin. The current consumption in OFF mode is limited to 1.5 µA. The device is stable with a small 1 µF output capacitor.

The device also includes internal protection features such as output current limitation and overtemperature shutdown. The main benefit of this product is that it has been qualified according to AEC-Q100 Grade 1 for extended mission profiles and has been qualified for automotive applications with extended lifetime requirements.

Key features

- > Enable
- > Adjustable output voltage
- > Output voltage accuracy: 2 percent
- > Output current: 70 mA
- > Current consumption: 36 µA
- > Overvoltage protection up to 58 V
- > Available in TSDSO-14 package
- > Wide operating temperature range: $-40^{\circ}\text{C} \leq T_j \leq 150^{\circ}\text{C}$

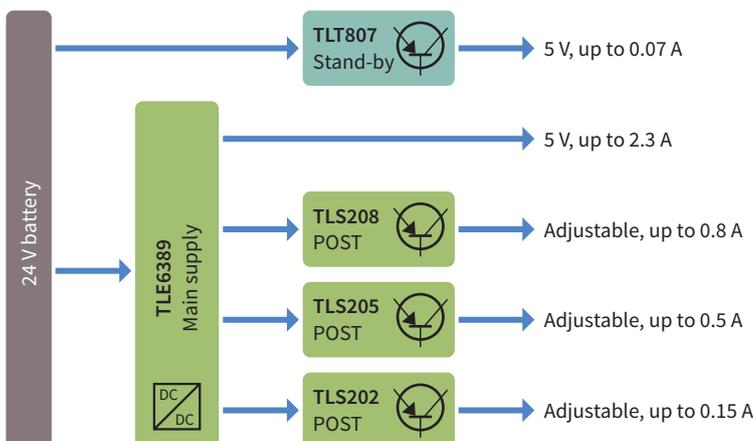
Benefits

- > Load dump voltage up to 58 V → **Requirement for 24 V battery powered applications**
- > Robust TSDSO-14 package → **Longer lifetime requirements for trucks, commercial and agricultural vehicles**
- > Low dropout voltage and quiescent current → **Suitable as a stand-by supply**
- > Extended qualification strategy for longer lifetime requirements

Applications

- > Stand-by linear voltage regulator for
 - xEV applications
 - 24 V applications
 - Trucks, commercial vehicles, construction vehicles, agricultural vehicles

Application diagram for TLT807B0EPV as a stand-by supply for 24 V ECUs



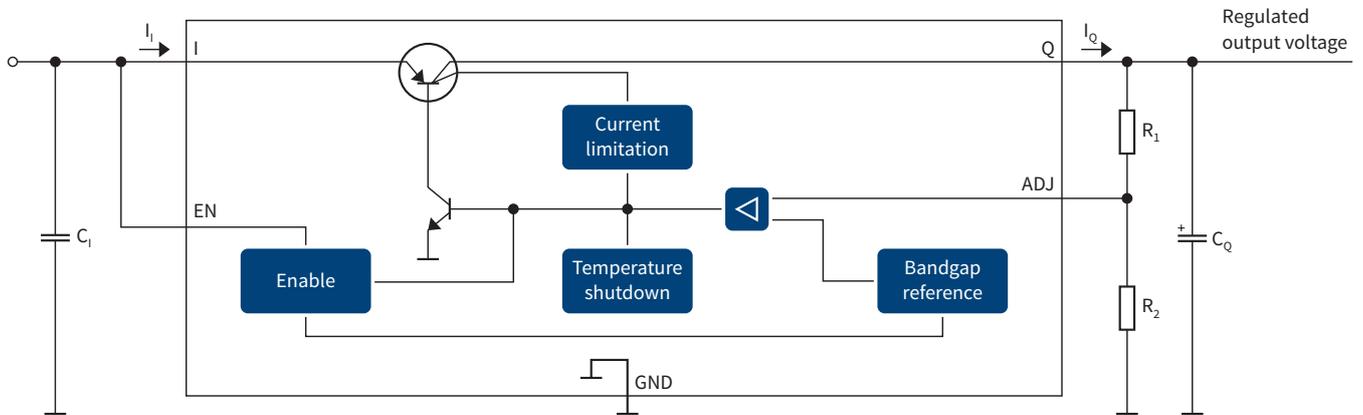
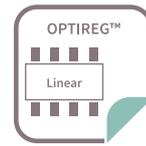
RoHS



TLT807B0EPV

OPTIREG™ Linear voltage regulator for 24 V applications

Low dropout adjustable stand-by linear voltage regulator with overvoltage protection



- Load dump capability 58 V
- Qualified according to truck mission profiles
- Robust TSDSO-14 package



- 24 V battery connected applications
- Longer lifetimes for trucks and CAV
- Designed for higher reliability

Product	OPN	Output current I_{out} [mA]	Quiescent current I_q [μ A]	Enable	Overvoltage protection	Output voltage [V]	Package
TLT807B0EPV	TLT807B0EPVXUMA1	70	36	Yes	Yes	Adjustable	TSDSO-14

Evaluation board name	Evaluation board OPN	Description
TLT807B0EPV BOARD	TLT807B0EPVBOARDTOB01	Evaluation board for 70 mA stand-by linear voltage regulator for 24 V applications

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