Green-Mode PWM Controller with Latch Protection

Features

- Current Mode Control
- Standby Power below 100mW
- Under-Voltage Lockout (UVLO)
- Non-Audible-Noise Green-Mode Control
- 65KHz Switching Frequency
- Internal Leading-Edge Blanking
- Internal Slope Compensation
- Gate Output Voltage Clamp
- Jitter and Soft Driving for Reducing EMI
- External OVP Latch Mode
- External OTP Latch Mode
- Over-Load Protection (OLP)- Auto Recovery Mode
- Vcc OVP Protection- Latch Mode
- 300mA Driving Capability

Description

The GR8838 is a highly-integrated, low startup current, current mode PWM controller with green-mode function. The integrated functions also include the leading-edge blanking of the current sensing, internal slope compensation, OLP, and OCP. Besides, The RTL pin latch function by injecting a high over 3.5V to provide OVP latch off and low below 1V to provide OTP latch off protection. These functions enable the power supply to easily meet even the strictest power requirements.

The GR8838 improves the performance and reduces the cost of power supplies. It is 6-pin SOT-26 package.

Application

- Battery Charger
- Open Frame SMPS
- Switching AC/DC Adapter

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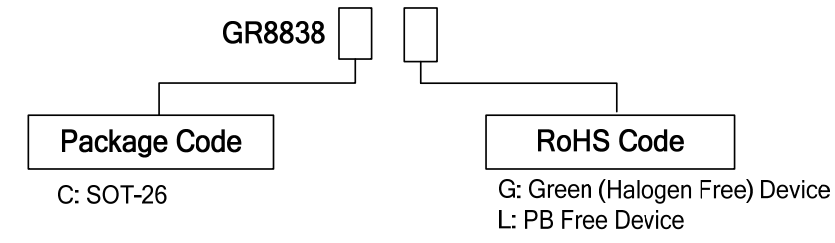
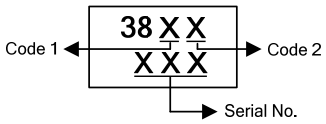
Ordering and Marking Information



SOT-26



Code 1	8	9	A	B		G	H	I	J
Year	2008	2009	2010	2011		2016	2017	2018	2019
Code 2	1	2	3	4		9	A	B	C
Month	Jan.	Feb.	Mar.	Apr.		Sep.	Oct.	Nov.	Dec.

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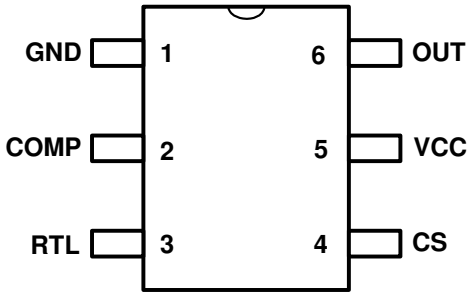
Pin Configuration



Pin Description

Pin No.	Name	Function
1	GND	Ground pin
2	COMP	Voltage feedback pin, by connecting a photo-coupler to control the duty cycle
3	RTL	Resistor trigger latch off which a high over 3.5V for OVP latch off and a low below 1V for OTP latch
4	CS	Current sense pin, connect to sense the MOSFET current
5	VCC	Power supply pin
6	OUT	The output driver for driving the external MOSFET

Absolute Maximum Ratings

Supply voltage VCC ---------- 30V

COMP, RTL, CS ---------- -0.3 ~ 7V

OUT ---------- -0.3 ~ VCC + 0.3V

Junction temperature ---------- 150℃

Operating ambient temperature ---------- -20℃ ~ 85℃

Storage temperature range ---------- -65℃ ~ 150 ℃

SOT-26 package thermal resistance (junction to ambient) ---------- 250℃/W

Power dissipation (SOT-26, at ambient temperature = 85℃) ---------- 250mW

Power dissipation (DIP-8, at ambient temperature = 85℃) ---------- 650mW

Lead temperature (All Pb free packages, soldering, 10 sec) ---------- 260℃

ESD voltage protection, human body model ---------- 2KV

ESD voltage protection, machine model ---------- 200V