



UA9287

LINEAR INTEGRATED CIRCUIT

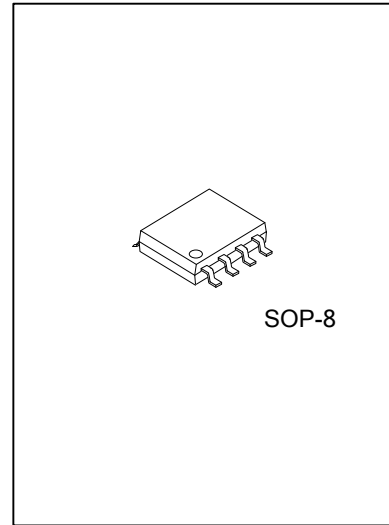
REVERSIBLE MOTOR DRIVER

DESCRIPTION

The UTC **UA9287** is designed for driving reversible-motor with a maximum output current of 1A. There are four output modes decided by two logic inputs: forward, reverse, stop (idling), and brake. When the motor is in stop mode, the current consumption can be suppressed.

FEATURES

- * With the V_{REF} Pin, Output Voltage can be Set Arbitrarily.
- * The Current Dissipation can be Suppressed with Power Saving Circuit Built-In when in Stop Mode.
- * Thermal Shutdown Circuit Built-In.
- * Interfaces with TTL Devices.

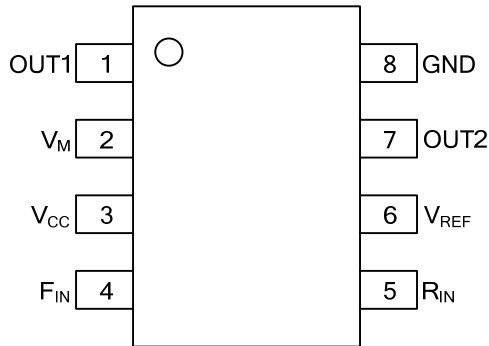


ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
UA9287L-S08-R	UA9287G-S08-R	SOP-8	Tape Reel
UA9287L-S08-T	UA9287G-S08-T	SOP-8	Tube

<p>UA9287L-S08-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel, T: Tube (2) S08: SOP-8 (3) G: Halogen Free, L: Lead Free</p>
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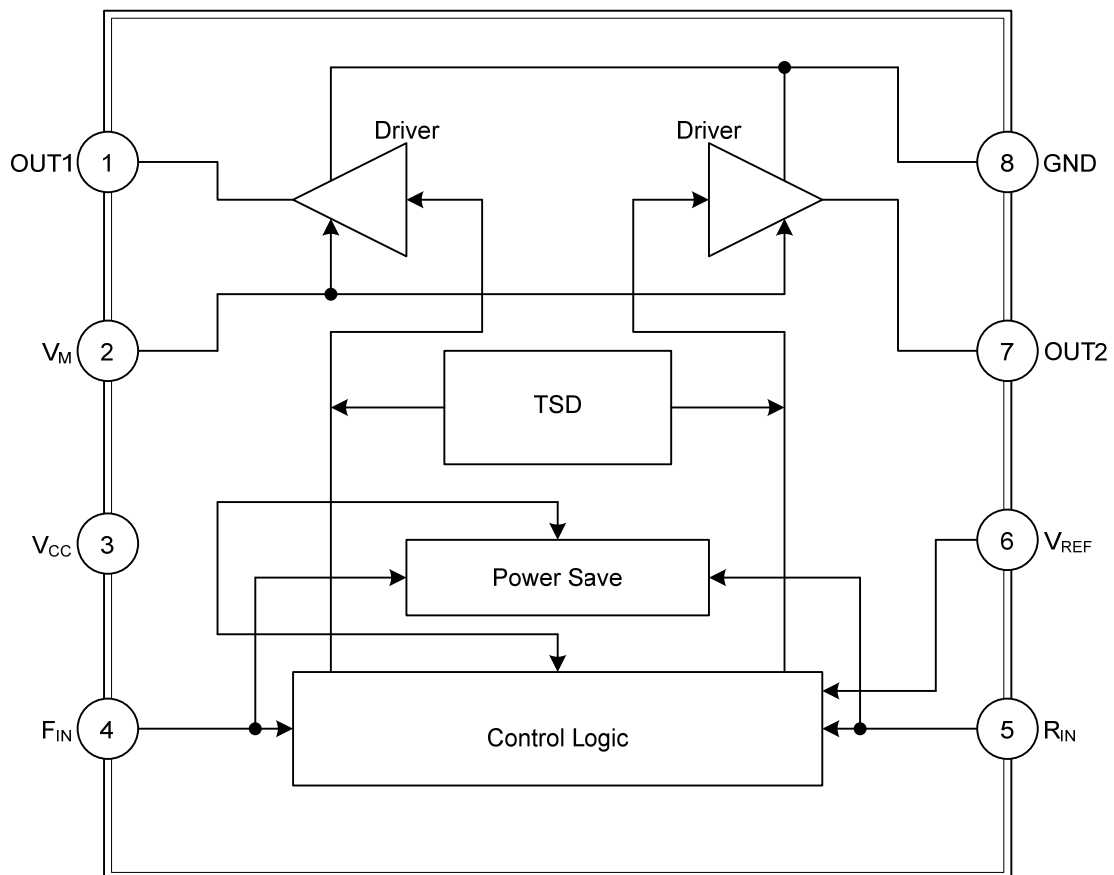
■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	FUNCTION
1	OUT1	Motor Output
2	V_M	Motor Power Supply
3	V_{CC}	Power Supply
4	F_{IN}	Logic Input
5	R_{IN}	Logic Input
6	V_{REF}	HIGH Level Output Voltage Setting
7	OUT2	Motor Output
8	GND	GND

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Power Supply Voltage	V_{CC}	18	V
Output Current	$I_{O(MAX)}$	1000 (Note 2, 3)	mA
Power Dissipation	P_D	650 (Note 2)	mW
Derating Factor above 25°C		5.2	mW / $^{\circ}\text{C}$
Operating Temperature	T_{OPR}	-20 ~ +75	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

Note: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. When mounted on a glass epoxy board ($50 \times 50 \times 1.6\text{mm}$)

3. Should not exceed P_D .

■ RECOMMENDED OPERATING CONDITIONS ($T_A=25^{\circ}\text{C}$)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply Voltage	V_{CC}	4.5		15	V
Motor Power Supply Voltage	V_M	4.5		15	V
Output High Level Voltage Setting Pin	V_{REF}	4.5		15	V

■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, $V_{CC}=9\text{V}$, $V_M=9\text{V}$, $V_{REF}=9\text{V}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Current 1	I_{CC1}	Forward or reverse mode	12	24	36	mA
Supply Current 2	I_{CC2}	Brake mode	29	48	67	mA
Standby Supply Current	I_{ST}	Standby mode			15	μA
V_{REF} Pin Sink Current	I_{REF}	Forward or reverse mode $I_O=200\text{mA}$	6	12	18	mA
Input High Level Voltage	V_{IH}		2.0			V
Input Low Level Voltage	V_{IL}				0.8	V
Input High Level Current	I_{IH}	$V_{IN}=2.0\text{V}$	45	90	135	μA
Output Saturation Voltage	V_{CE}	$I_O=200\text{mA}$, Sum of output transistor high-and low-side voltages		1.0	1.5	v

■ TYPICAL APPLICATION CIRCUIT

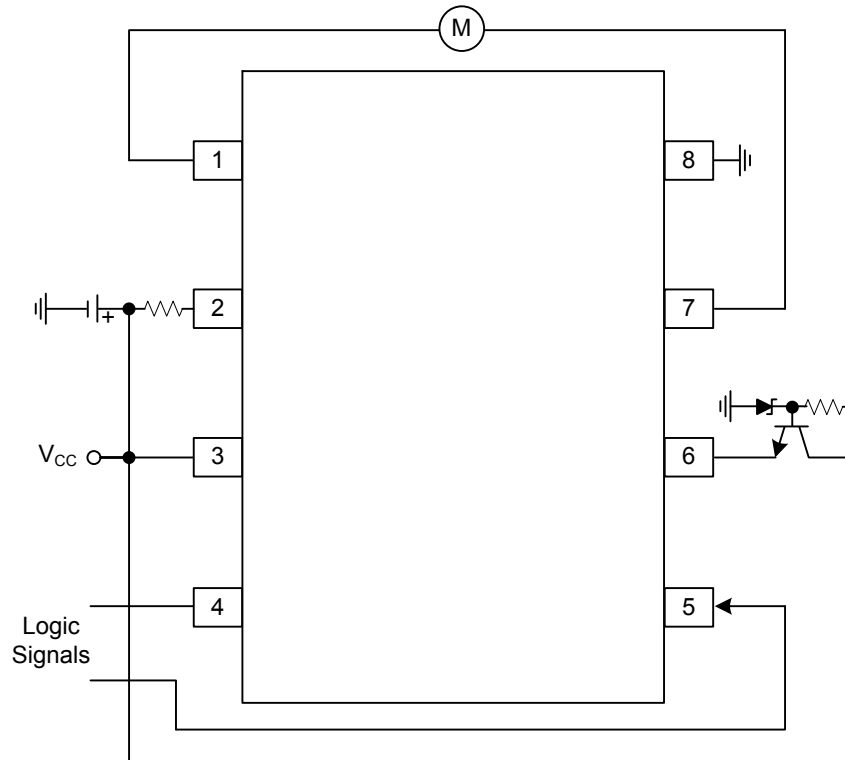


Figure 1.

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