

Descriptions

The DW8525 consists of step-down switching regulator.
DW8525 provides low-ripple power, high efficiency, and excellent transient characteristics
It achieves 1A continuous output current.

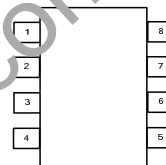
Ordering Information

Device	Marking	Package	Operating Temp
DW8525	DW8525 XXXXXXXXX YWW	8-SOIC	-35°C ~ +85°C

Features

- 6V to 35V supply voltage.
- 1.0A Output Current
- Internal High-Side Switch
- Fixed 300kHz internal Oscillator
- Thermal Shutdown and Short-Circuit Protection
- 8-SOIC package.

Package Information

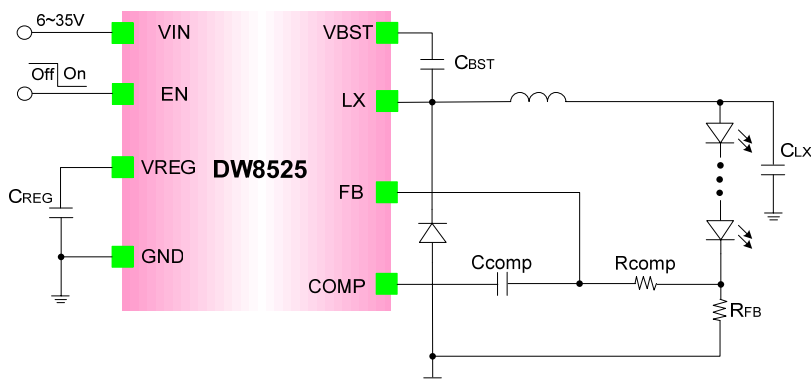


Package	Size
8-SOIC	4.9 x 6.0 x 1.4 (mm)

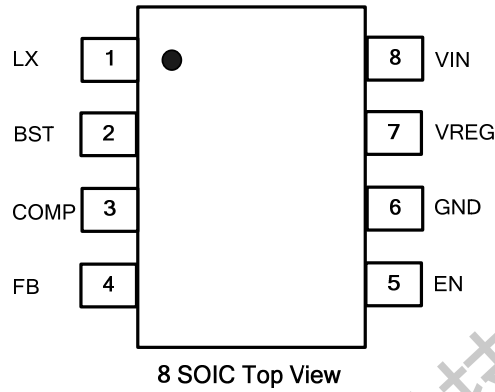
Applications

- LED Backlight and High Power LED Application.
- Architecture Detail lighting.
- Constant Current Source.
- Hand-held lighting.

Typical Application Circuit



Pin Connection



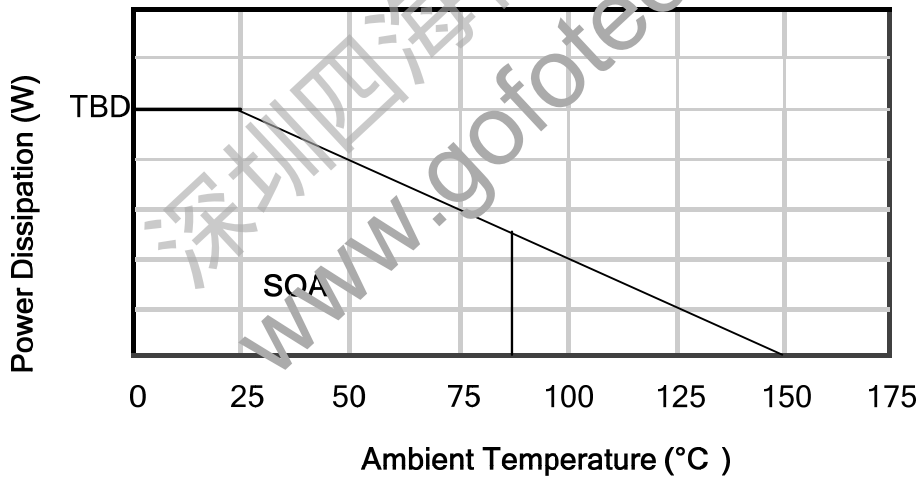
Pin Description

Pin No.	Symbol	I/O	Description
1	LX	-	Switch Pin. Connect external inductor/Diode Here
2	BST	-	Floating supply voltage for the high side driver
3	COMP	-	Compensation Pin
4	FB	-	Feedback Pin
5	EN	I	Chip Enable/disable, When EN is Low, IC operates.
6	GND	-	Ground
7	VREG	O	Regulator output
8	VIN	-	Power supply

Absolute Maximum Ratings

Characteristics	Symbol	Value	Unit
Supply voltage	V_{IN}	35	V
Continuous power dissipation	P_D	TBD	W
Package thermal resistance	θ_{JA}	TBD	$^{\circ}C/W$
Operating temperature	T_{OPR}	-35 to +85	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

Power Dissipation Curve



Recommended Operation Conditions

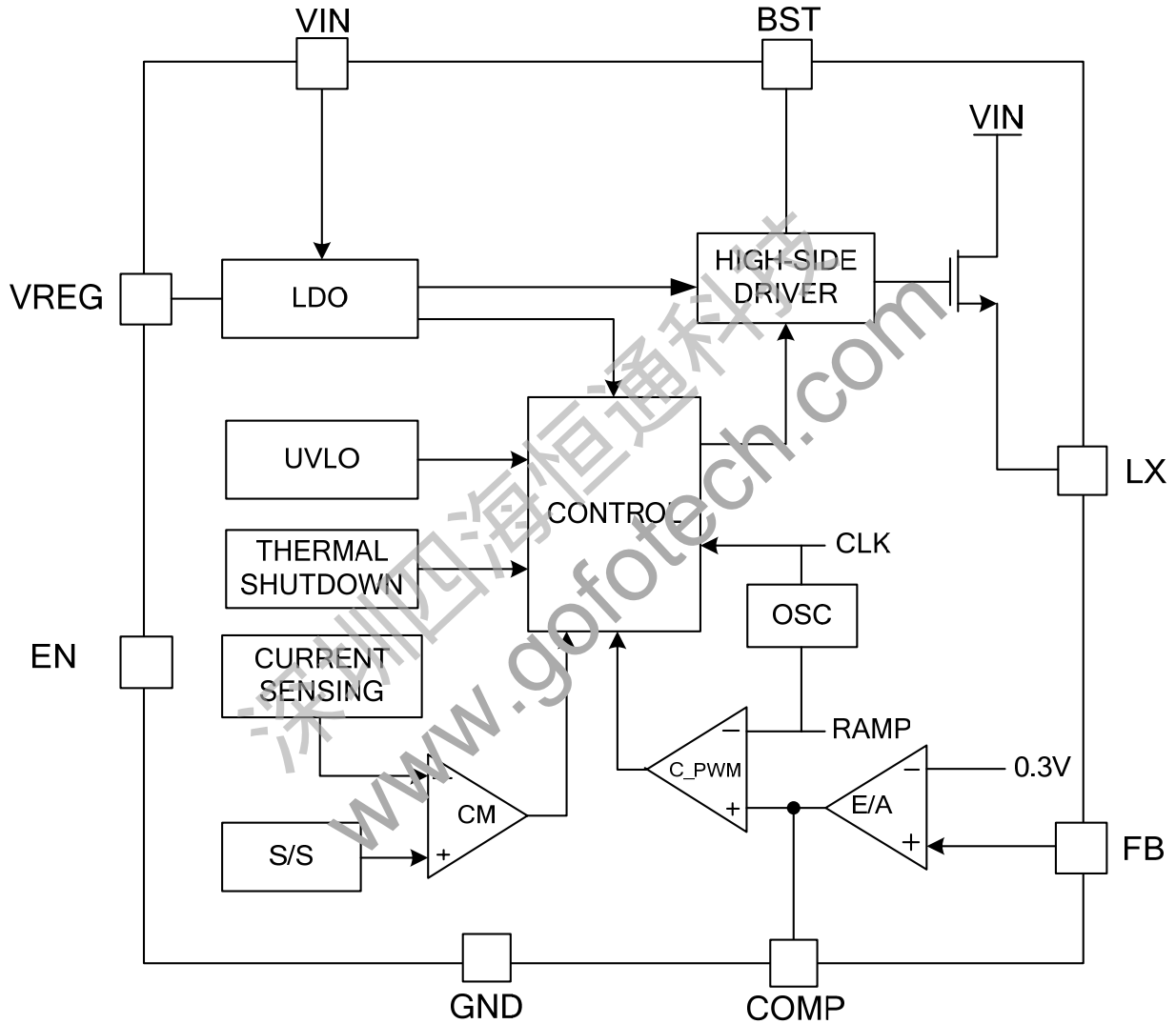
Characteristics	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	V_{in}	6	-	35	V

Electrical Characteristics

$T_A=+25^{\circ}\text{C}$, $V_{\text{IN}}=6\text{V}$ to 35V , Unless Otherwise Noted

Parameter	Symbol	Min.	Typ.	Max.	Unit
Input Voltage Range	V_{IN}	6.0		35	V
Under Voltage Lockout Threshold	VUVLO		5.3	6	V
Under Voltage Lockout Hysteresis	$V_{\text{UVLO}_{\text{HYS}}}$		500		mV
Regulator Output Voltage	V_{REG}		5.0		V
Thermal Shutdown Temperature (Low)	T_{SD_L}		125		$^{\circ}\text{C}$
Thermal Shutdown Temperature (Hiht)	T_{SD_H}		140		$^{\circ}\text{C}$
Thermal Shutdown Hysteresis	$T_{\text{SD-HYS}}$		40		$^{\circ}\text{C}$
Feedback Voltage	V_{FB}		300		mV
Switching Frequency	f_{SW}		300		Khz
Switch Current Resistance	$R_{\text{ON}_{\text{SW}}}$		TBD		Ω
Switch Current limit	I_{LIMIT}		1.5		A
Quiescent Current (Enable)	I_{Q}		1.2	2.5	mA
Quiescent Current (Disable)	I_{SD}		60	100	μA
Enable Threshold Voltage	V_{IH}	0.4			V
Shutdown Threshold Voltage	V_{IL}			2.0	V
Switch Leakage	SW_{LKG}		1		μA

Block Diagram



Package Dimension

8 SOIC Package (4.9x6.0mm)

(Unit : mm)

