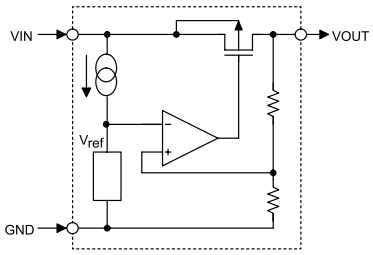
High Driver LDO Regulator

multicomp PRO

RoHS Compliant



Features

- Low power consumption
- Low voltage drop
- Low temperature coefficient
- High input voltage (up to 24V)

Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating
Supply Voltage	V_{SS}	-0.3 to 26V
Power Consumption	P_c	250mW
Junction Temperature	T_J	125°C
Operating Temperature	T_{op}	0°C to 70°C
Storage Temperature range	T_{STG}	-50°C to 125°C

Electrical Characteristic Ta = 25°C

HT7530, +3.0V output type

Parameter	Symbol	Test conditons		Min	Typ	Max	Unit
		V_{IN}	Conditions				
Output Voltage Tolerance	V_{OUT}	5V	I_{OUT}=10mA	2.85	3	3.15	V
Output Current	I_{OUT}			60	100		mA
Load Regulation	$\triangle V_{OUT}$		1mA≤ I_{OUT} ≤ 50mA		60	150	mV
Voltage Drop	V_{DIF}		I_{OUT}=1mA		100		
Current Consumption	I_{SS}	5V	No load		10	20	uA
Line Regulation	$\triangle V_{OUT}$ / $\triangle V_{IN}$ XV_{OUT}		4V ≤ V_{IN} ≤ 12V I_{OUT}=1mA		0.2		%/V
Input Voltage	V_{IN}					24	V
Temperature Coefficient	$\triangle V_{OUT}$ / $\triangle$Ta	5V	I_{OUT}=10mA 0°C<Ta<70°C		±0.45		mV/°C

HT7533, +3.3V output type

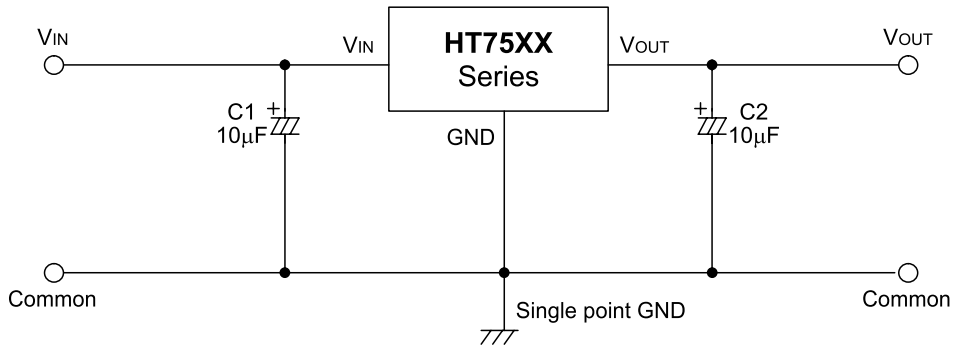
Parameter	Symbol	Test conditons		Min	Typ	Max	Unit
		V_{IN}	Conditions				
Output Voltage Tolerance	V_{OUT}	5.5V	I_{OUT}=10mA	3.14	3.3	3.47	V
Output Current	I_{OUT}			60	100		mA
Load Regulation	$\triangle V_{OUT}$		1mA≤ I_{OUT} ≤ 50mA		60	150	mV
Voltage Drop	V_{DIF}		I_{OUT}=1mA		100		
Current Consumption	I_{SS}	5.5V	No load		10	20	uA
Line Regulation	$\triangle V_{OUT}$ / $\triangle V_{IN}$ XV_{OUT}		4.5V ≤ V_{IN} ≤ 12V I_{OUT}=1mA		0.2		%/V
Input Voltage	V_{IN}					24	V
Temperature Coefficient	$\triangle V_{OUT}$ / $\triangle$Ta	5.5V	I_{OUT}=10mA 0°C<Ta<70°C		±0.5		mV/°C

HT7550, +5.0V output type

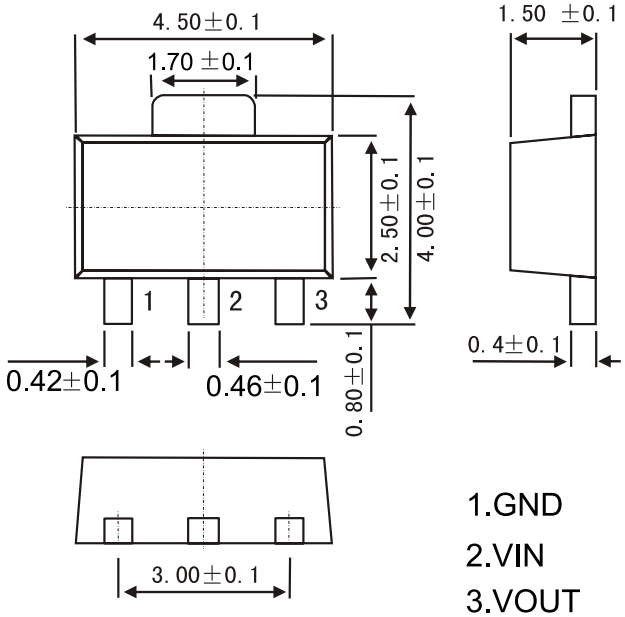
Parameter	Symbol	Test conditons		Min	Typ	Max	Unit
		V_{IN}	Conditions				
Output Voltage Tolerance	V_{OUT}	7V	I_{OUT}=10mA	4.75	5	5.25	V
Output Current	I_{OUT}			100	150		mA
Load Regulation	$\triangle V_{OUT}$		1mA≤ I_{OUT} ≤ 70mA		60	150	mV
Voltage Drop	V_{DIF}		I_{OUT}=1mA		100		
Current Consumption	I_{SS}	7V	No load		10	20	uA
Line Regulation	$\triangle V_{OUT}$ / $\triangle V_{IN}$ XV_{OUT}		6V ≤ V_{IN} ≤ 15V I_{OUT}=1mA		0.2		%/V
Input Voltage	V_{IN}					24	V
Temperature Coefficient	$\triangle V_{OUT}$ / $\triangle$Ta	7V	I_{OUT}=10mA 0°C<Ta<70°C		±0.75		mV/°C

Typical Characterisitics

Basic circuits



Diagram



1.GND
2.VIN
3.VOUT

Part Number Table

Description	Part Number
High Driver LDO Regulator, 3.0V, ±5%, SOT-89	HT7530
High Driver LDO Regulator, 3.3V, ±5%, SOT-89	HT7533
High Driver LDO Regulator, 5.0V, ±5%, SOT-89	HT7550

Dimensions : Millimetres