

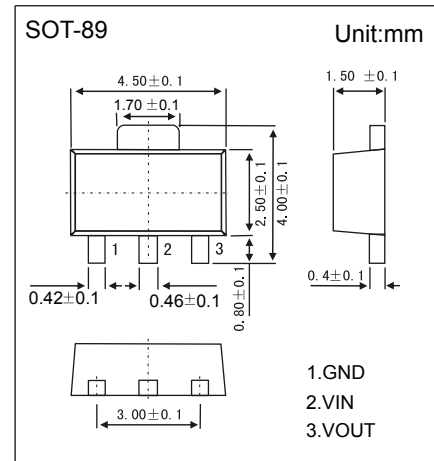
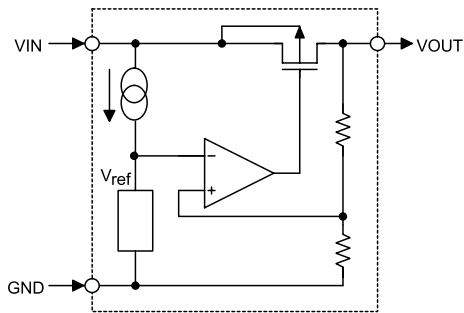


High Driver Regulator

75XX

■ Features

- Low power consumption
- Low voltage drop
- Low temperature coefficient
- High input voltage (up to 24V)
- High output current : 100mA



■ Selection Table

Part No.	Output Voltage	Tolerance
7530	3V	±5%
7533	3.3V	±5%
7536	3.6V	±5%
7544	4.4V	±5%
7550	5V	±5%
7580	8V	±5%

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Supply Voltage	V _{ss}	-0.3 to 26	V
Power Consumption	P _c	250	mW
Junction Temperature	T _j	125	°C
Operating Temperature	T _{opr}	0 to 70	
Storage Temperature range	T _{stg}	-50 to 125	

■ Marking

NO.	7530	7533	7536	7544	7550	7580
Marking	D7530 *****	D7533 *****	D7536 *****	D7544 *****	D7550 *****	D7580 *****



High Driver Regulator

75XX

■ Electrical Characteristics Ta = 25°C

7530, +3.0V output type

Parameter	Symbol	Test Conditions		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}	5V		60	100		mA
Load Regulation	ΔV _{OUT}	5V	1mA ≤ I _{OUT} ≤ 50mA		60	150	mV
Voltage Drop	V _{DIF}		I _{OUT} = 1mA		100		mV
Current Consumption	I _{SS}	5V	No load		10	20	μA
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN}} \times \Delta V_{OUT}$		4V ≤ V _{IN} ≤ 12V I _{OUT} =1mA		0.2		%/V
Input Voltage	V _{IN}					24	V
Temperature Coefficient	$\frac{\Delta V_{OUT}}{\Delta T_a}$	5V	I _{OUT} =10mA 0 °C < T _a < 70 °C		±0.45		mV/°C

7533, +3.3V output type

Parameter	Symbol	Test Conditions		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}	5.5V		60	100		mA
Load Regulation	ΔV _{OUT}	5.5V	1mA ≤ I _{OUT} ≤ 50mA		60	150	mV
Voltage Drop	V _{DIF}		I _{OUT} = 1mA		100		mV
Current Consumption	I _{SS}	5.5V	No load		10	20	μA
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN}} \times \Delta V_{OUT}$		4.5V ≤ V _{IN} ≤ 12V I _{OUT} =1mA		0.2		%/V
Input Voltage	V _{IN}					24	V
Temperature Coefficient	$\frac{\Delta V_{OUT}}{\Delta T_a}$	5.5V	I _{OUT} =10mA 0 °C < T _a < 70 °C		±0.5		mV/°C

7536, +3.6V output type

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
		V _{IN}	Conditions				
Output Voltage Tolerance	V _{OUT}	5.6V	I _{OUT} = 10mA	3.42	3.6	3.78	V
Output Current	I _{OUT}	5.6V		60	100		mA
Load Regulation	ΔV _{OUT}	5.6V	1mA ≤ I _{OUT} ≤ 50mA		60	150	mV
Voltage Drop	V _{DIF}		I _{OUT} = 1mA		100		mV
Current Consumption	I _{SS}	5.6V	No load		10	20	μA
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN}} \times \Delta V_{OUT}$		4.6V ≤ V _{IN} ≤ 12V I _{OUT} =1mA		0.2		%/V
Input Voltage	V _{IN}					24	V
Temperature Coefficient	$\frac{\Delta V_{OUT}}{\Delta T_a}$	5.6V	I _{OUT} =10mA 0 °C < T _a < 70 °C		±0.6		mV/°C



High Driver Regulator

75XX

■ Electrical Characteristics Ta = 25°C

7544, +4.4V output type

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
		V _{IN}	Conditions				
Output Voltage Tolerance	V _{OUT}	6.4V	I _{OUT} = 10mA	4.18	4.4	4.62	V
Output Current	I _{OUT}	6.4V		60	100		mA
Load Regulation	ΔV _{OUT}	6.4V	1mA ≤ I _{OUT} ≤ 50mA		60	150	mV
Voltage Drop	V _{DIF}		I _{OUT} = 1mA		100		mV
Current Consumption	I _{SS}	6.4V	No load		10	20	μA
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \times \Delta V_{OUT}}$		5.4V ≤ V _{IN} ≤ 12V I _{OUT} =1mA		0.2		%/V
Input Voltage	V _{IN}					24	V
Temperature Coefficient	$\frac{\Delta V_{OUT}}{\Delta T_a}$	6.4V	I _{OUT} =10mA 0 °C < T _a < 70 °C		±0.7		mV/°C

7550, +5.0V output type

Parameter	Symbol	Test Conditions		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}	7V		100	150		mA
Load Regulation	ΔV _{OUT}	7V	1mA ≤ I _{OUT} ≤ 70mA		60	150	mV
Voltage Drop	V _{DIF}		I _{OUT} = 1mA		100		mV
Current Consumption	I _{SS}	7V	No load		10	20	μA
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \times \Delta V_{OUT}}$		6V ≤ V _{IN} ≤ 15V I _{OUT} =1mA		0.2		%/V
Input Voltage	V _{IN}					24	V
Temperature Coefficient	$\frac{\Delta V_{OUT}}{\Delta T_a}$	7V	I _{OUT} =10mA 0 °C < T _a < 70 °C		±0.75		mV/°C

7580, +8.0V output type

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
		V _{IN}	Conditions				
Output Voltage Tolerance	V _{OUT}	10V	I _{OUT} = 10mA	7.61	8	8.4	V
Output Current	I _{OUT}	10V		100	150		mA
Load Regulation	ΔV _{OUT}	10V	1mA ≤ I _{OUT} ≤ 70mA		60	150	mV
Voltage Drop	V _{DIF}		I _{OUT} = 1mA		100		mV
Current Consumption	I _{SS}	10V	No load		10	20	μA
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \times \Delta V_{OUT}}$		9V ≤ V _{IN} ≤ 20V I _{OUT} =1mA		0.2		%/V
Input Voltage	V _{IN}					24	V
Temperature Coefficient	$\frac{\Delta V_{OUT}}{\Delta T_a}$	10V	I _{OUT} =10mA 0 °C < T _a < 70 °C		±1.2		mV/°C

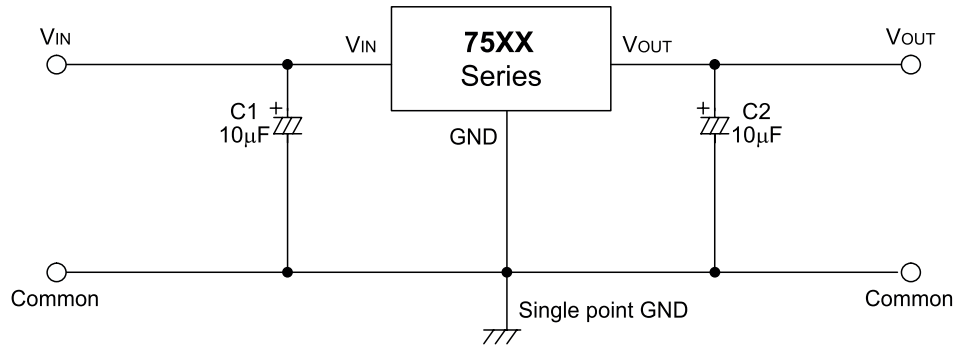


High Driver Regulator

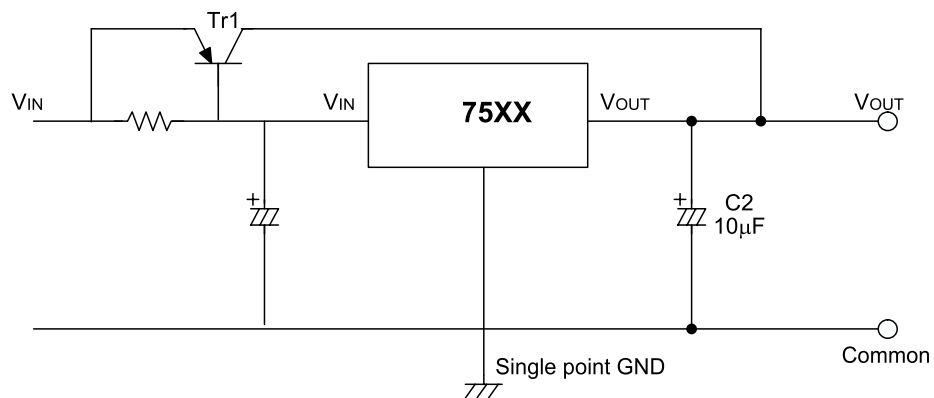
75XX

■ Typical Characteristics

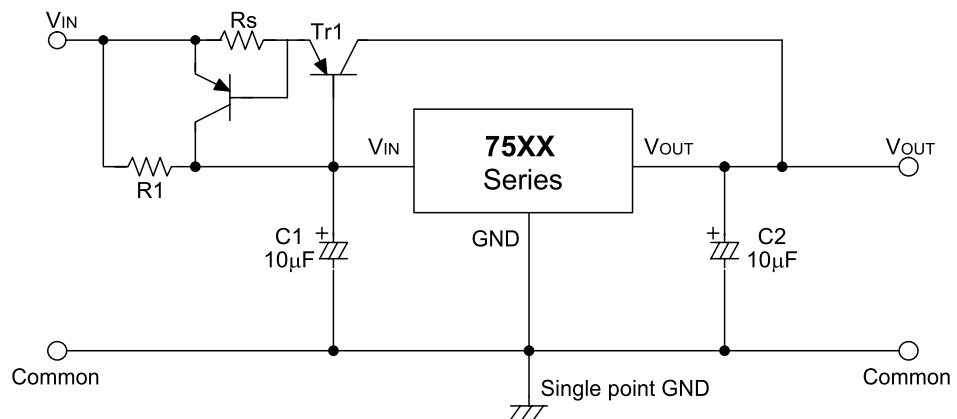
Basic circuit



High output current positive voltage regulator



Short-Circuit protection for $Tr1$

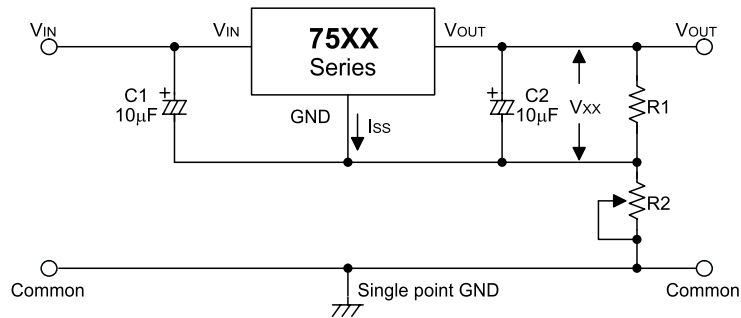




High Driver Regulator

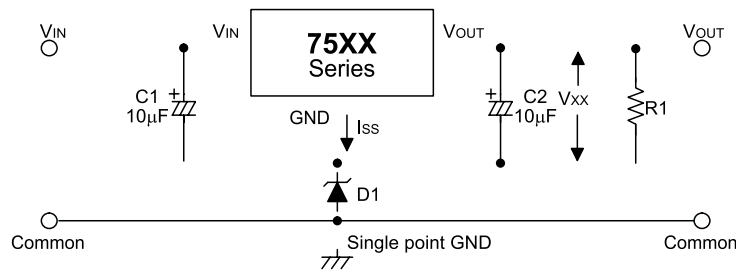
75XX

■ Typical Characteristics



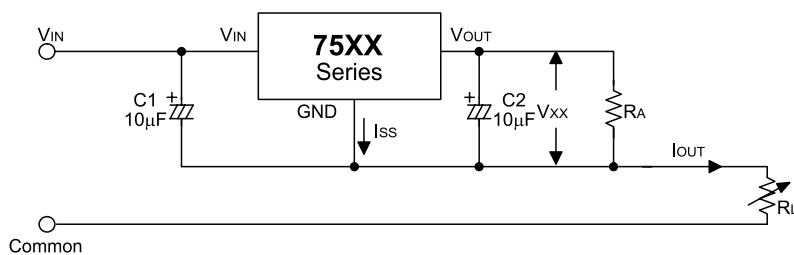
$$V_{OUT} = V_{xx} \left(1 + \frac{R2}{R1} \right) + I_{SS} R2$$

Circuit for increasing output voltage



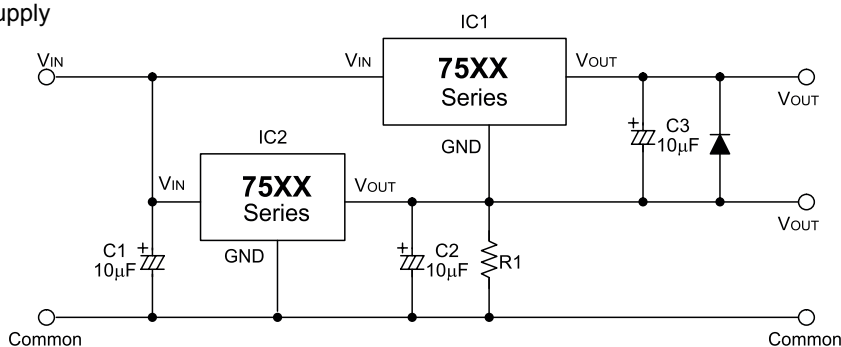
$$V_{OUT} = V_{xx} + V_{D1}$$

Constant current regulator



$$I_{OUT} = \frac{V_{xx}}{R_A} + I_{SS}$$

Dual supply



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Linear Voltage Regulators](#) category:

Click to view products by [LangJie](#) manufacturer:

Other Similar products are found below :

[LV5684PVD-XH](#) [MCDTSA6-2R](#) [L7815ACV-DG](#) [714954EB](#) [ZMR500QFTA](#) [BA033LBSG2-TR](#) [LV5680P-E](#) [L79M05T-E](#) [L78LR05D-MA-E](#) [NCV317MBTG](#) [NTE7227](#) [MP2018GZD-33-P](#) [MP2018GZD-5-P](#) [LV5680NPVC-XH](#) [LT1054CN8](#) [ZTS6538SE](#) [UA78L09CLP](#) [UA78L09CLPR](#) [CAT6221-PPTD-GT3](#) [MC78M09CDTRK](#) [NCV51190MNTAG](#) [78M05](#) [HT7150-1](#) [UM1540DB-18](#) [XC6234H281VR-G](#) [WL2834CA-6/TR](#) [TPL730F33-5TR](#) [TLS850F1TA](#) [V50](#) [TPS549B22RVFR](#) [UM1540DB-33](#) [WL9200P3-50B](#) [WL9100P3-33B](#) [WL9005D4-33](#) [XC6219B152MR](#) [WL2855K33-3/TR](#) [PJ54BM33SE](#) [PJ9500M25SA](#) [MD7218E33PC1](#) [H7533-2PR](#) [SK7812AU](#) [SD1A30](#) [78L33](#) [TP78L33T3](#) [L78L33ACUTR](#) [SK6513ST3A-50](#) [SK6054D4-09](#) [SK6054D4-18](#) [SK6054D4-11](#) [SK6054D4-10](#) [LM79L12F](#)