Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V_{IN}	Conditions				
V_{OUT}	Output Voltage	4.1V	I_{OUT}=10mA	2.037	2.1	2.163	V
I_{OUT}	Output Current	4.1V	—	60	100	—	mA
ΔV_{OUT}	Load Regulation	4.1V	1mA≤I_{OUT}≤50mA	—	60	150	mV
V_{DIF}	Voltage Drop (Note)	—	I_{OUT}=1mA, ΔV_{OUT}=2%	—	100	—	mV
I_{SS}	Current Consumption	4.1V	No load	—	2.5	5.0	μA
	Line Regulation	—	3.1V≤V_{IN}≤24V I_{OUT}=1mA	—	0.2	—	%/V
V_{IN}	Input Voltage	—	—	—	—	28	V
	Temperature Coefficient	4.1V	I_{OUT}=10mA -40°C<Ta<85°C	—	±0.37	—	mV/°C

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V_{IN}	Conditions				
V_{OUT}	Output Voltage	5.6V	I_{OUT}=10mA	3.492	3.6	3.708	V
I_{OUT}	Output Current	5.6V	—	60	100	—	mA
ΔV_{OUT}	Load Regulation	5.6V	1mA≤I_{OUT}≤50mA	—	60	150	mV
V_{DIF}	Voltage Drop (Note)	—	I_{OUT}=1mA, ΔV_{OUT}=2%	—	100	—	mV
I_{SS}	Current Consumption	5.6V	No load	—	2.5	5.0	μA
	Line Regulation	—	4.6V≤V_{IN}≤24V I_{OUT}=1mA	—	0.2	—	%/V
V_{IN}	Input Voltage	—	—	—	—	28	V
	Temperature Coefficient	5.6V	I_{OUT}=10mA -40°C<Ta<85°C	—	±0.6	—	mV/°C

Note: Dropout voltage is defined as the input voltage minus the output voltage that produces a 2% change in the output voltage from the value at V_{IN} = V_{OUT}+2V with a fixed load.

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V_{IN}	Conditions				
V_{OUT}	Output Voltage	6.0V	I_{OUT}=10mA	3.88	4.0	4.12	V
I_{OUT}	Output Current	6.0V	—	60	100	—	mA
ΔV_{OUT}	Load Regulation	6.0V	1mA≤I_{OUT}≤50mA	—	60	150	mV
V_{DIF}	Voltage Drop (Note)	—	I_{OUT}=1mA, ΔV_{OUT}=2%	—	100	—	mV
I_{SS}	Current Consumption	6.0V	No load	—	2.5	5.0	μA
	Line Regulation	—	5.0V≤V_{IN}≤24V I_{OUT}=1mA	—	0.2	—	%/V
V_{IN}	Input Voltage	—	—	—	—	28	V
	Temperature Coefficient	6.0V	I_{OUT}=10mA -40°C<Ta<85°C	—	±0.7	—	mV/°C

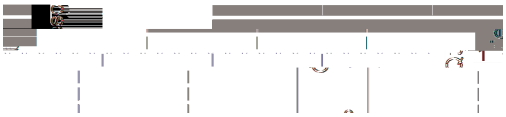
Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V_{IN}	Conditions				
V_{OUT}	Output Voltage	8.0V	I_{OUT}=10mA	5.82	6.0	6.18	V
I_{OUT}	Output Current	8.0V	—	150	—	—	mA
ΔV_{OUT}	Load Regulation	8.0V	1mA≤I_{OUT}≤70mA	—	60	150	mV
V_{DIF}	Voltage Drop (Note)	—	I_{OUT}=1mA, ΔV_{OUT}=2%	—	100	—	mV
I_{SS}	Current Consumption	8.0V	No load	—	2.5	5.0	μA
	Line Regulation	—	7.0V≤V_{IN}≤24V I_{OUT}=1mA	—	0.2	—	%/V
V_{IN}	Input Voltage	—	—	—	—	28	V
	Temperature Coefficient	8.0V	I_{OUT}=10mA -40°C<Ta<85°C	—	±0.85	—	mV/°C

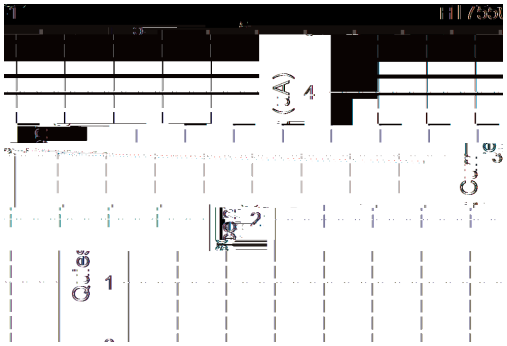
Note: Dropout voltage is defined as the input voltage minus the output voltage that produces a 2% change in the

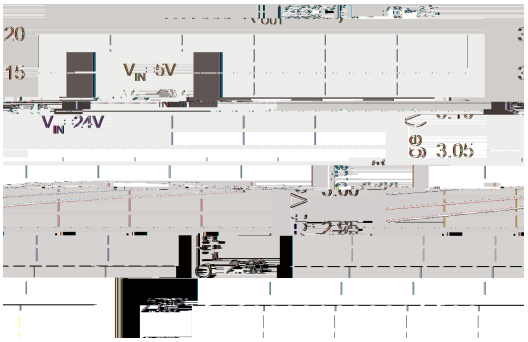
Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V_{IN}	Conditions				
V_{OUT}	Output Voltage	10V	I_{OUT}=10mA	7.76	8.0	8.24	V
I_{OUT}	Output Current	10V	—	150	—	—	mA
ΔV_{OUT}	Load Regulation	10V	1mA≤I_{OUT}≤70mA	—	60	150	mV
V_{DIF}	Voltage Drop (Note)	—	I_{OUT}=1mA, ΔV_{OUT}=2%	—	100	—	mV
I_{SS}	Current Consumption	10V	No load	—	2.5	5.0	μA
	Line Regulation	—	9.0V≤V_{IN}≤24V I_{OUT}=1mA	—	0.2	—	%/V
V_{IN}	Input Voltage	—	—	—	—	28	V
	Temperature Coefficient	10V	I_{OUT}=10mA -40°C<Ta<85°C	—	±1.10	—	mV/°C

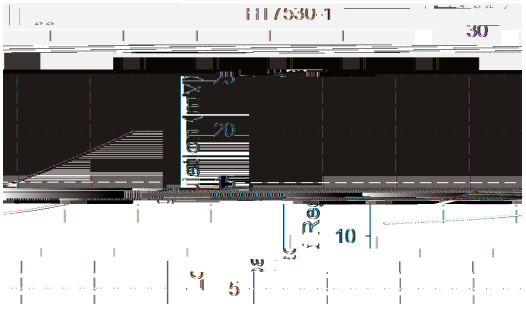
Note: Dropout voltage is defined as the input voltage minus the output voltage that produces a 2% change in the output voltage from the value at V_{IN} = V_{OUT}+2V with a fixed load.

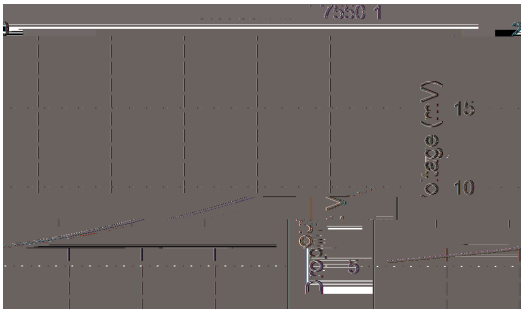
Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V_{IN}	Conditions				
V_{OUT}	Output Voltage	11V	I_{OUT}=10mA	8.73	9.0	9.27	V
I_{OUT}	Output Current	11V	—	150	—	—	mA
ΔV_{OUT}	Load Regulation	11V	1mA≤I_{OUT}≤70mA	—	60	150	mV
V_{DIF}	Voltage Drop (Note)	—	I_{OUT}=1mA, ΔV_{OUT}=2%	—	100	—	mV
I_{SS}	Current Consumption	11V	No load	—	2.5	5.0	μA
	Line Regulation	—	10V≤V_{IN}≤24V I_{OUT}=1mA	—	0.2	—	%/V
V_{IN}	Input Voltage	—	—	—	—	28	V
	Temperature Coefficient	11V	$I_{=1mA}$=107A 10	—		mV/°C	

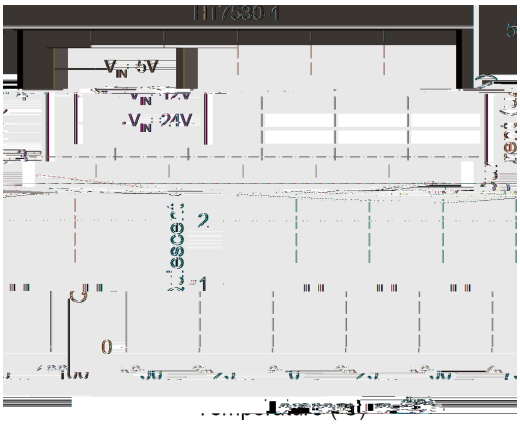


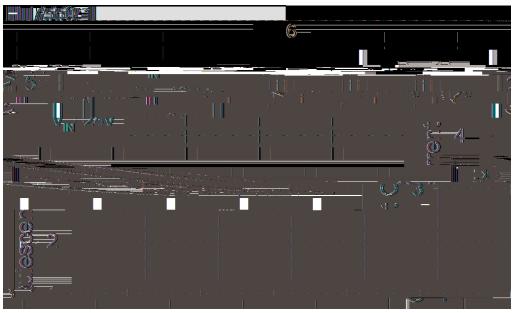


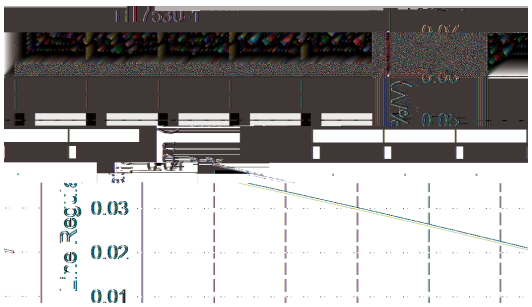

20
15
V_{IN} 5V
V_{IN} 24V
3.05


HT7530-1
30
20
10
5


7550 1
15
10
5


HT7530-1
V_IN 5V
V_IN 24V
2
1
0



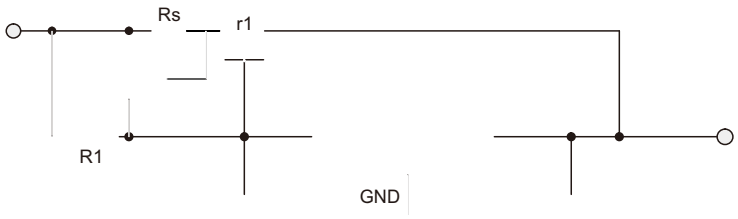

HT7530-1
0.03
0.02
0.01


0.14
0.12
0.02

Basic Circuit

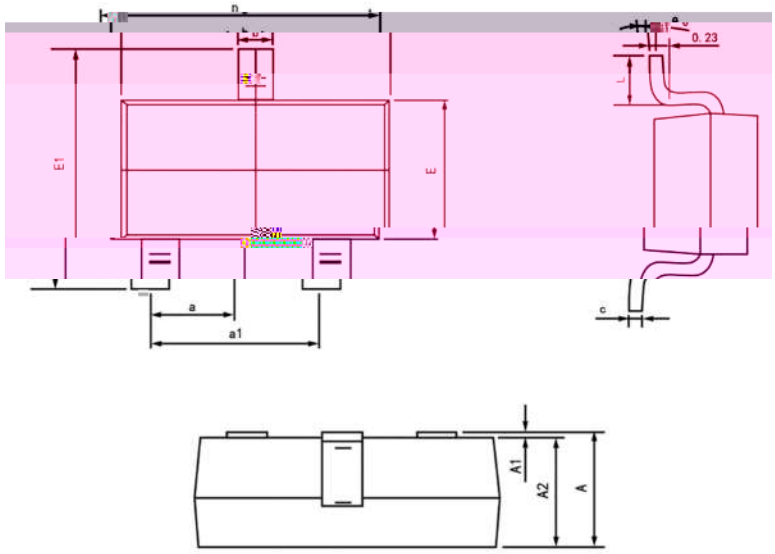
High Output Current Positive Voltage Regulator

Short-Circuit Protection for Tr1



Ordering information

Package	Packing Description	Base Quantity	Packing Quantity



A	1.05	1.25	41	49.2
A1	0.10		3.93	
A2	1.05	1.15	41	45
b	0.30	0.50	12	20
c	0.10	0.20	3.93	7.9
D	2.82	3.02	111	119
E	1.50	1.70	59	67
E1	2.65	2.95	104	116
e	0.95		37.4	
e1	1.80	2.00	71	78
L	0.30	0.066	12	26
Θ	8°			

