

BRC07550T

Rev.F Apr.-2021

/ Descriptions

SOT-89

Low dropout linear regulator in a SOT-89 Plastic Package .

/ Features

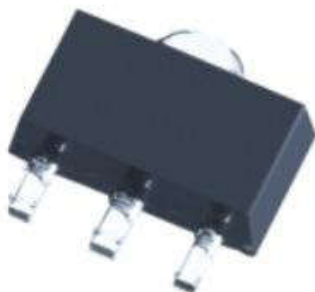
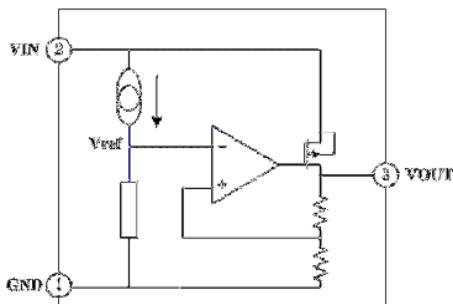
30V

2.5 μ A

$\pm 2\%$

Low power consumption,Low voltage drop,Small temperature drift coefficient,High input voltage up to 30V,The static current 2.5 μ A,The output voltage accuracy: $\pm 2\%$.HF Product.

For use in power equipment,Communication equipment,Audio and video equipment.



PIN1 GND PIN 2 VIN PIN 3 VOUT

/ Marking/

/ See Marking Instructions.

Parameter	Symbol	Rating	Unit
Working Voltage	V_{IN}	-0.3~33	V
Thermal Resistance	R_{JA}	200	°C/W
Power Consumption	P_W	500	mW
Storage Temperature	T_{STG}	-50~+125	°C
Working Temperature	T_A	-40~+85	°C

Notes: If the device operating conditions over the maximum rating of the above-mentioned conditions, may cause permanent damage to the device. The above parameters is only part of the operating conditions the maximum, we do not recommend the device running outside the scope of this specification. If the device to work long hours under the condition of absolute maximum limit, its stability may be affected.

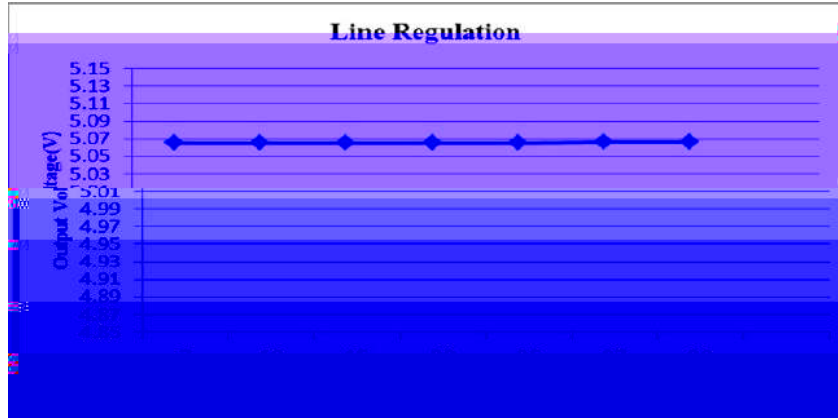
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
The Output Voltage	V_{OUT}	$V_{IN}=7.0V, I_{OUT}=10mA$	4.90	5.00	5.10	V
The Output Current	I_{OUT}	$V_{IN}=7.0V$	100	150		mA
Load Regulation	ΔV_{OUT}	$V_{IN}=7.0V$ $1mA \leq I_{OUT} \leq 150mA$		25	60	mV
Low Dropout	V_{DIF}	$I_{OUT}=1mA, \Delta V_{OUT}=2\%$		25	55	mV
Static Power	I_{SS}	$V_{IN}=7.0V$		2.5	4.0	μA

Linear Regulation

ΔV

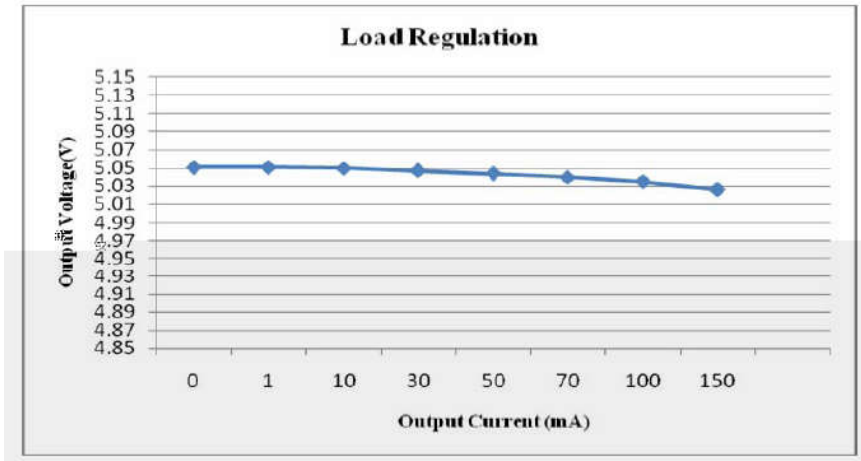
/ Electrical Characteristic Curve

/ The input voltage and output voltage



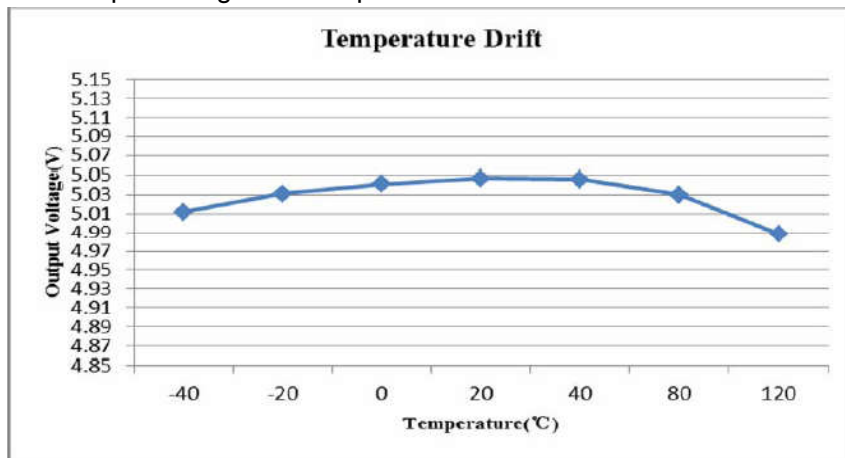
$I_{OUT}=10mA$

/ The output voltage and load current



$V_{IN}=7.0V$

/ The output voltage and temperature

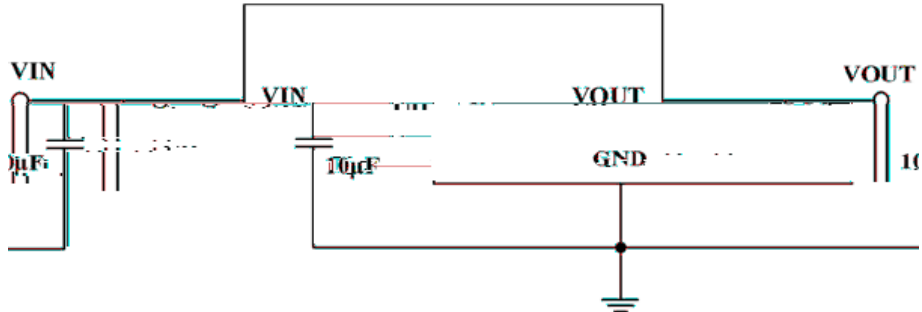


$V_{IN}=7.0V$

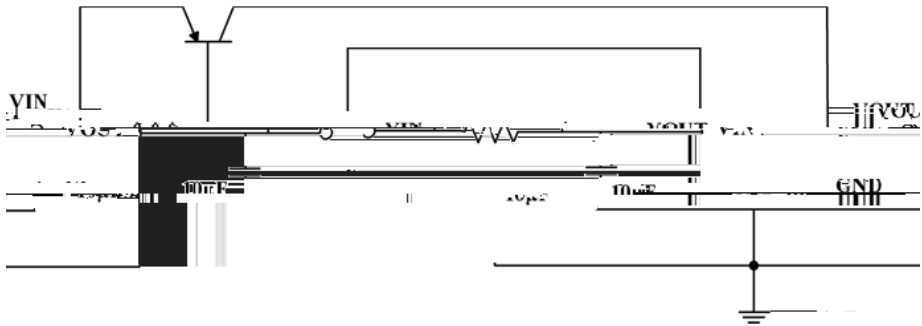
$I_{OUT}=10mA$

/ Typical Application Circuit

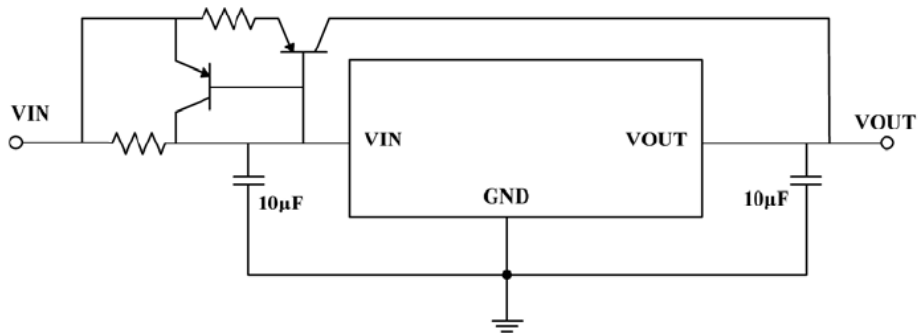
/ Basic Application



/ High Output Current Voltage Regulator

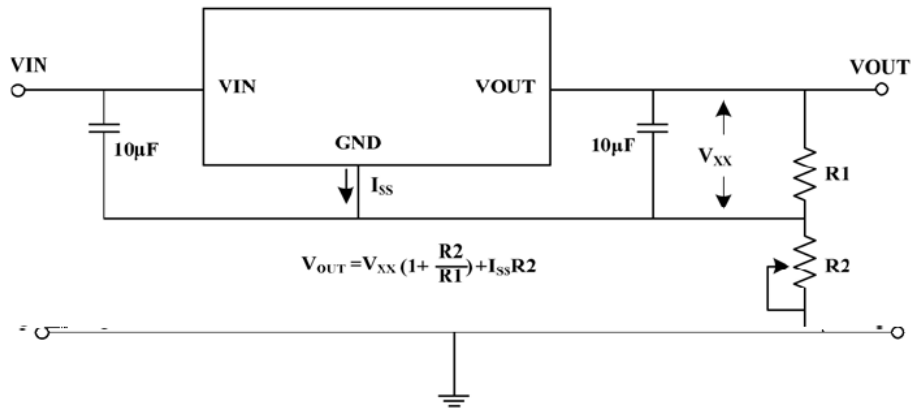


/ Short-Circuit Protection

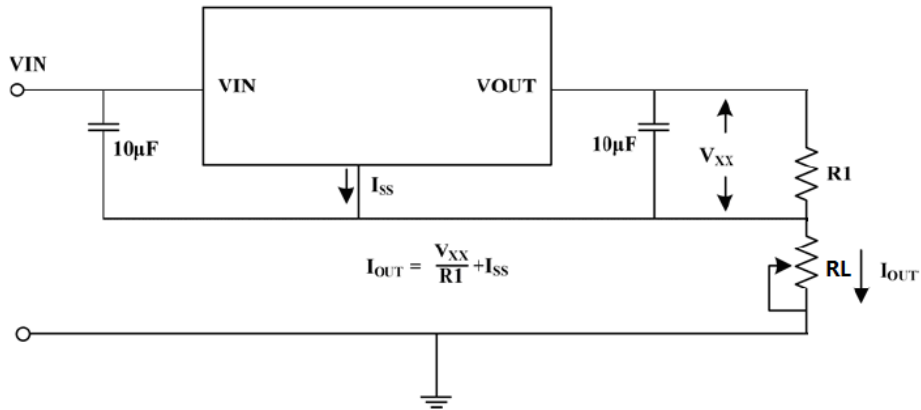


/ Typical Application Circuit

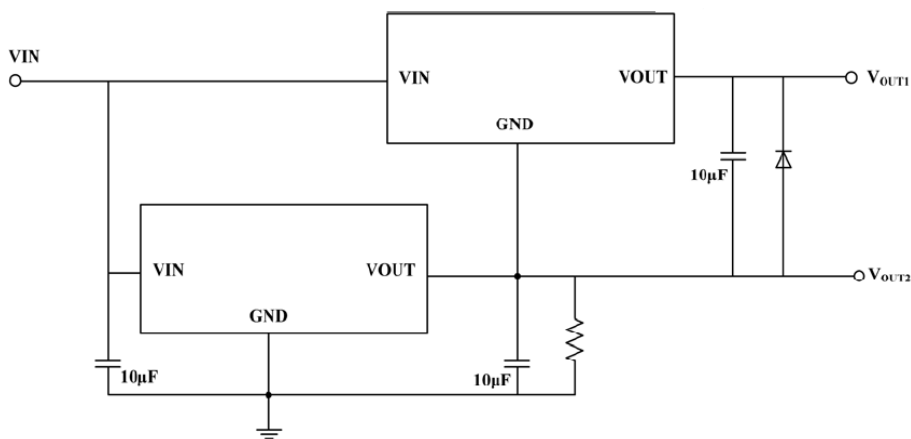
/ Circuit for Increasing Output Voltage



/ Constant Current Regulator

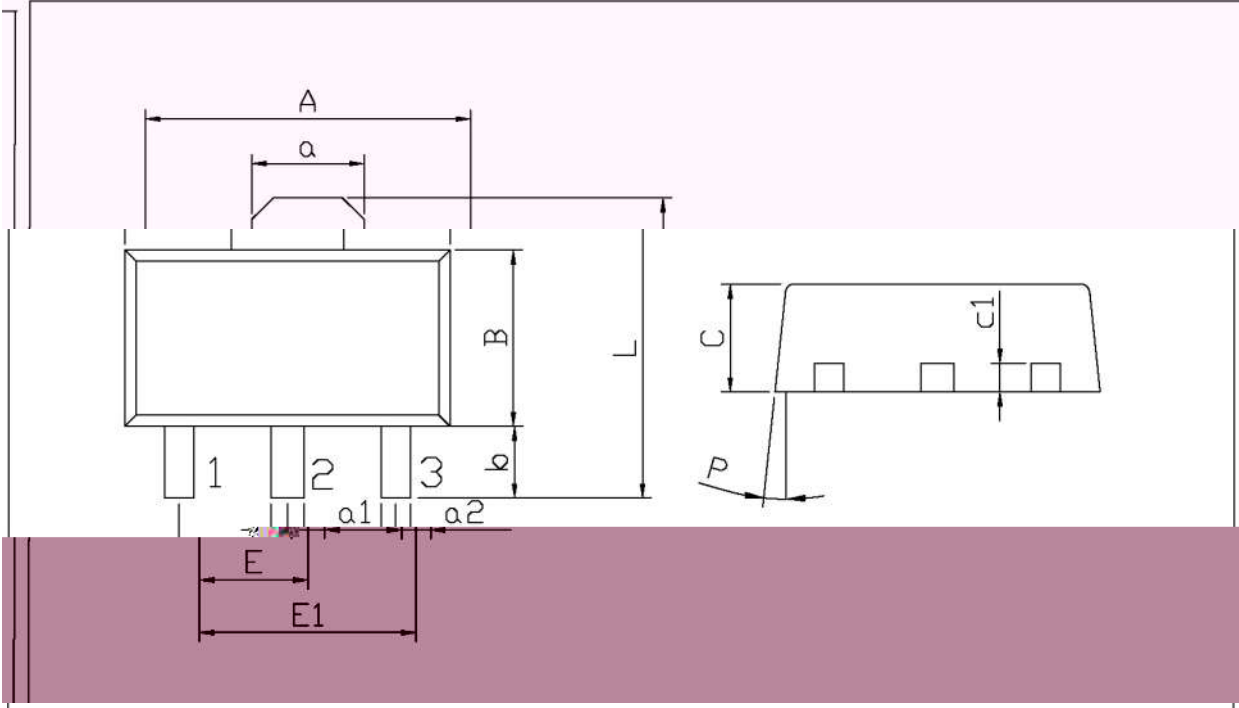


/ Double Output Circuit



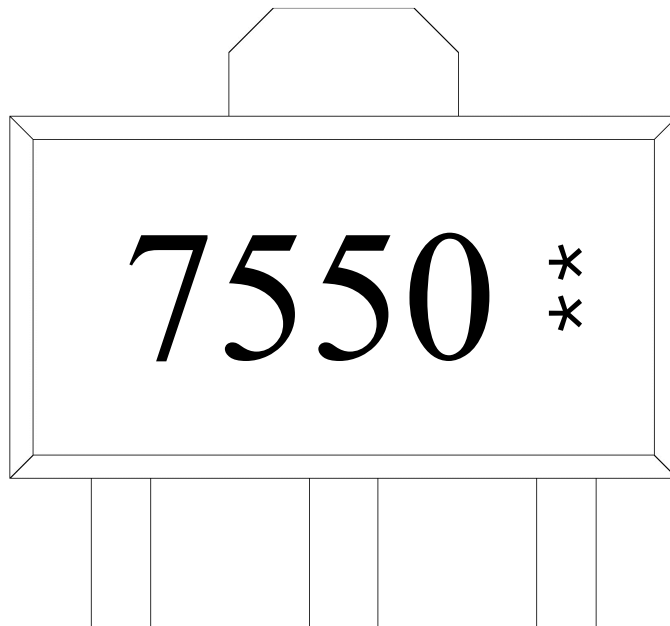
/ Package Dimensions

SOT-89 单位: mm.



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	0.30	0.50
L	3.878	4.478	C	1.40	1.70
a	1.45	1.65	c1	0.35	0.50
E	1.40	1.60	P	6°	
E1	2.80	3.20			
b	0.80	1.20			

/ Marking Instructions



7550

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Note:

7550: Product Type.

** : Lot No. Code, code change with Lot No.

BRCO7550T
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