SOT-89

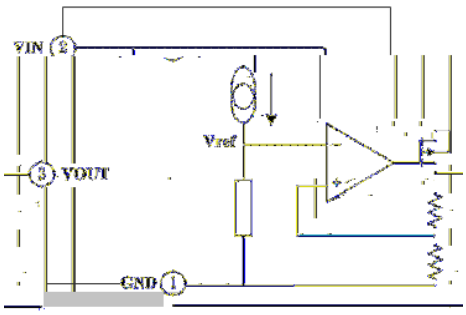
Low dropout linear regulator in a SOT-89 Plastic Package.

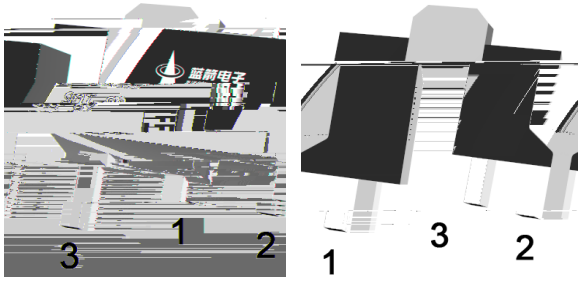
30V 2.5μA ±2%

AEC-Q100

Low power consumption,Low voltage drop,Small temperature drift coefficient,High input voltage up to 30V,The static current 2.5μA,The output voltage accuracy:±2%,Qualified to AEC-Q100 Standards for High Reliability, HF Product.

For use in power equipment,Communication equipment,Audio and video equipment, Meet the stringent requirements of automotive applications.





PIN1 GND PIN 2 VIN PIN 3 VOUT

/ See Marking Instructions.

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

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.

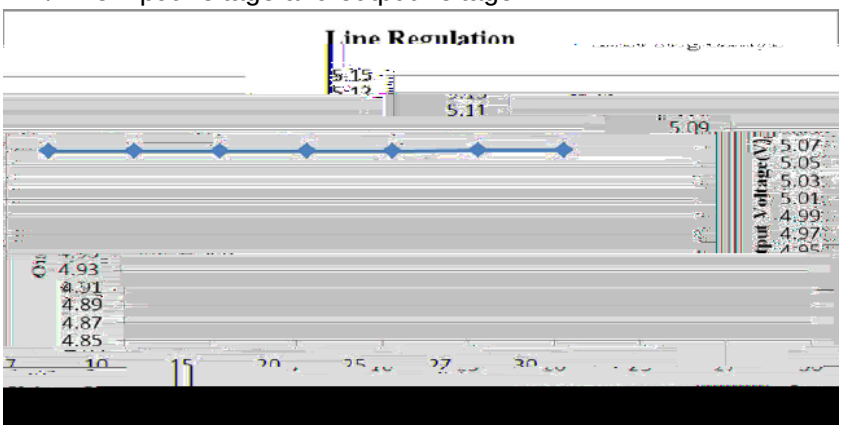
[redacted]

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	V_{OUT}	V_{IN}=7.0V 1mA ≤ I_{OUT} ≤ 150mA		25	60	mV
Low Dropout	V_{DIF}	I_{OUT}=1mA, V_{OUT}=2%		25	55	mV
Static Power	I_{SS}	V_{IN}=7.0V		2.5	4.0	μA
[redacted]	V_{IN}	V ≤ V_{IN} ≤ 30V I_{OUT}=10mA			0.2	%/V
The Input Voltage	V_{IN}					

[redacted]

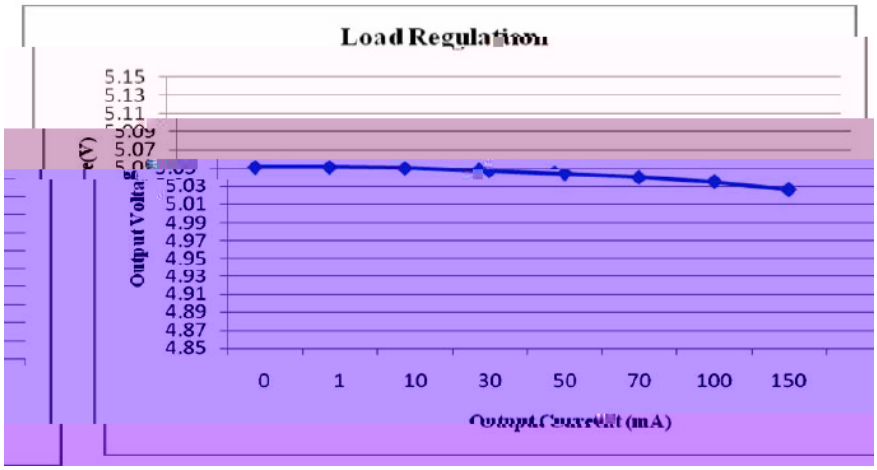
[redacted]

/ The input voltage and output voltage



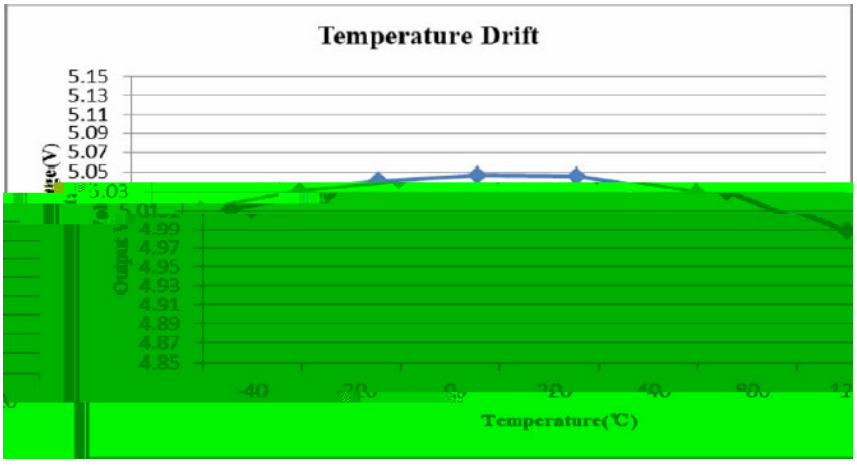
I_{OUT}=10mA

/ The output voltage and load current



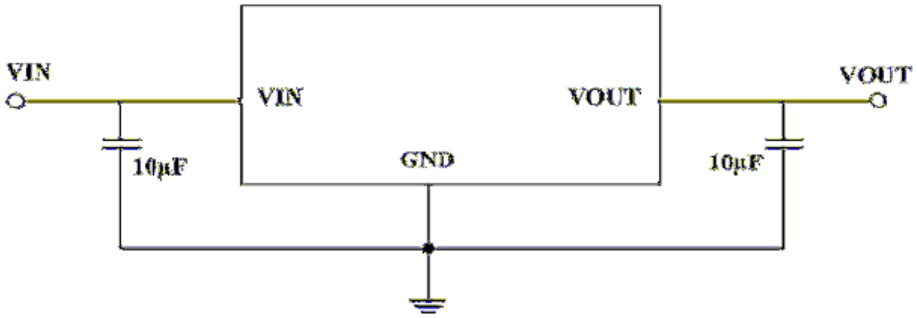
V_{IN}=7.0V

/ The output voltage and temperature

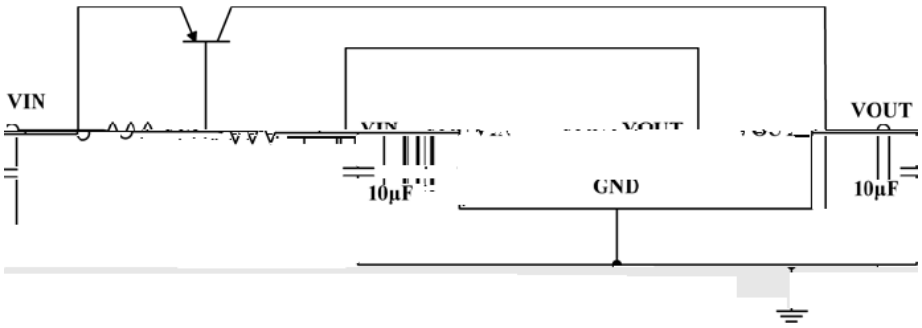


V_{IN}=7.0V I_{OUT}=10mA

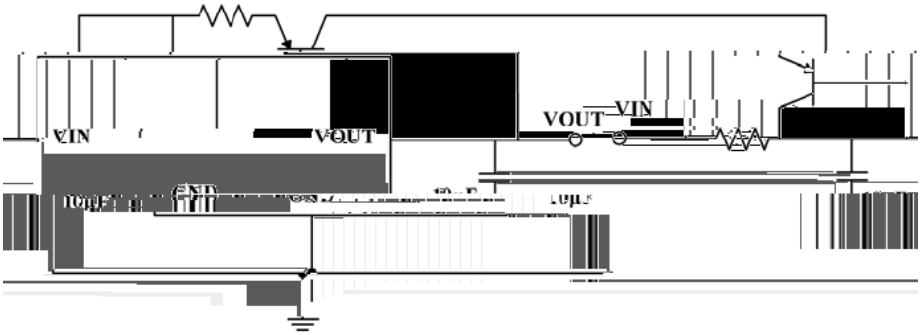
/ Basic Application



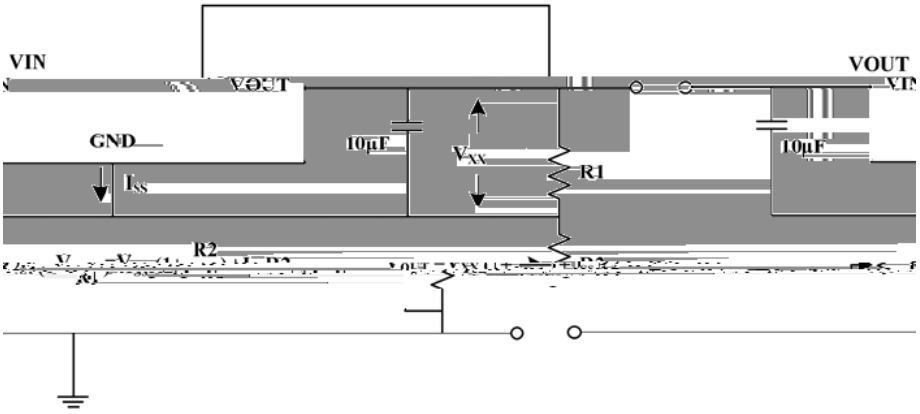
/ High Output Current Voltage Regulator



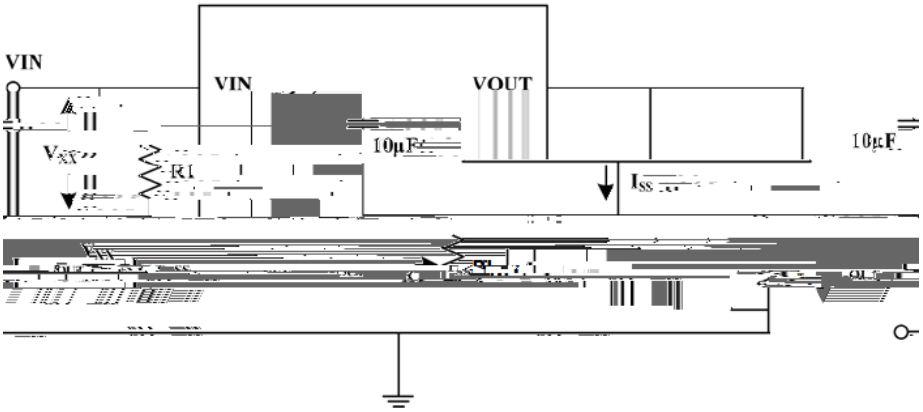
/ Short-Circuit Protection



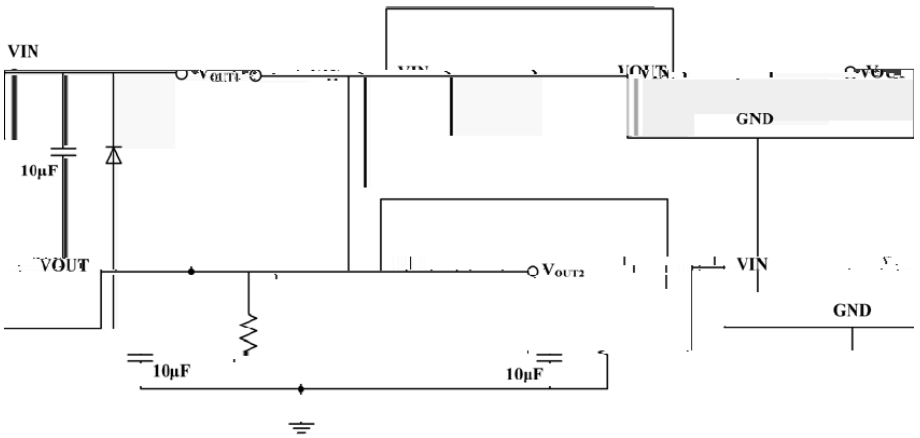
/ Circuit for Increasing Output Voltage

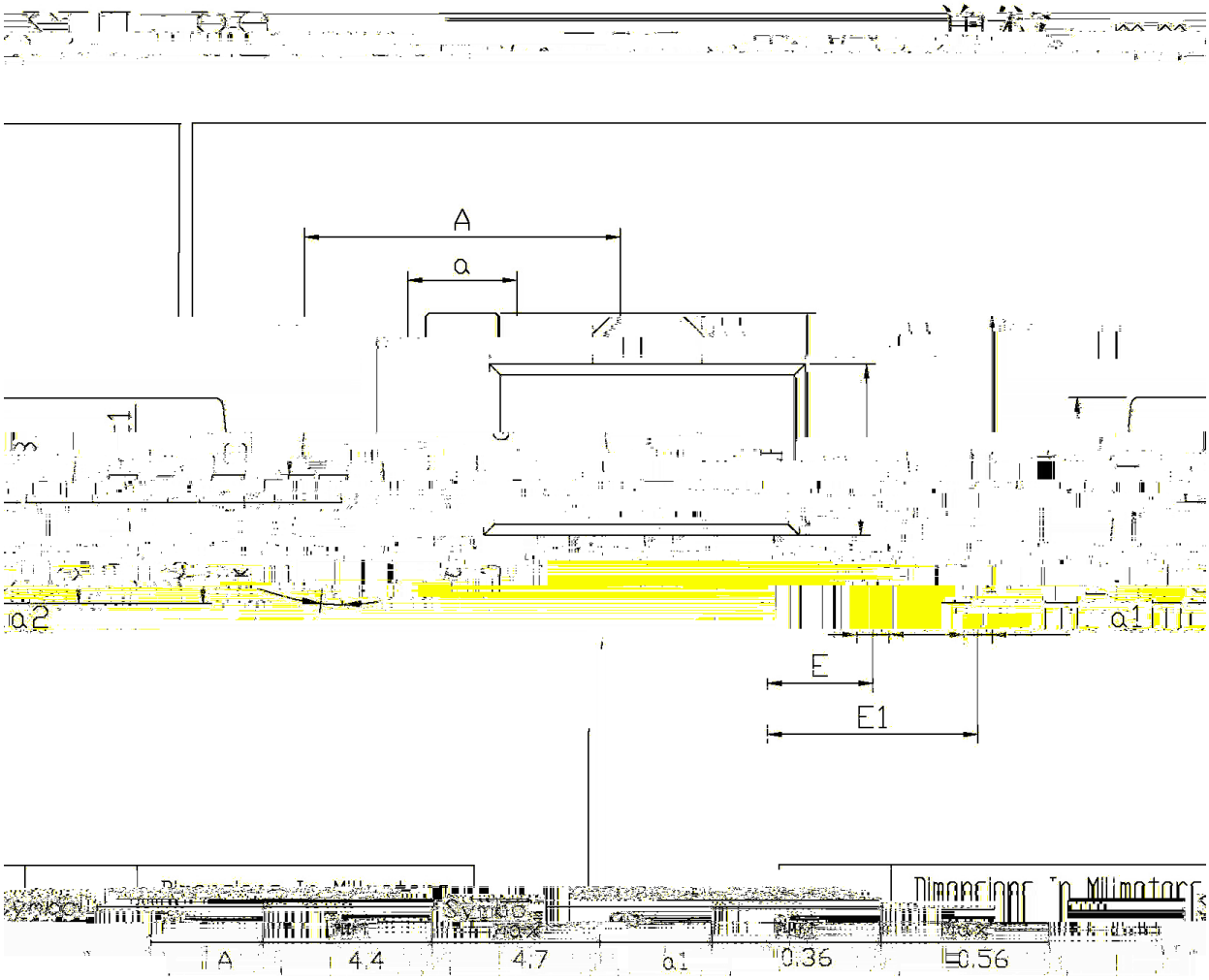


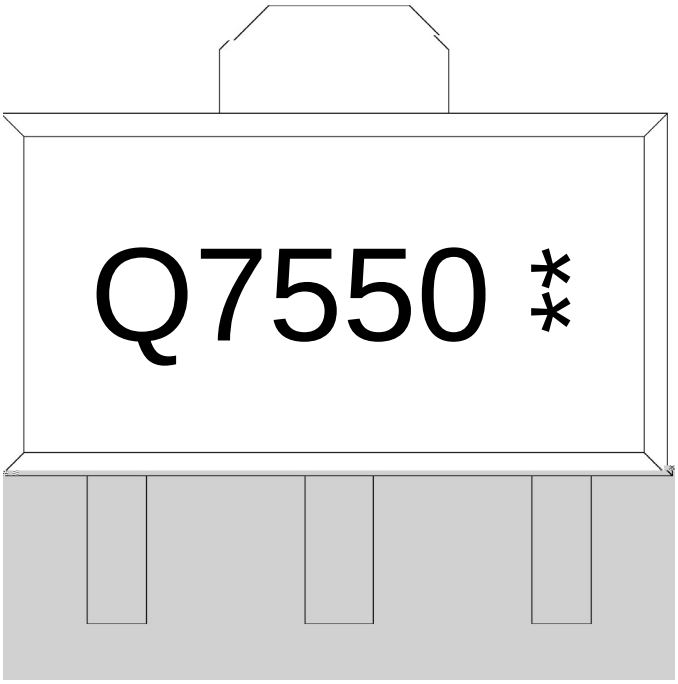
/ Constant Current Regulator



/ Double Output Circuit




A
a
a2
a1
E
E1
A
4.4
4.7
a1
0.36
0.56



Q

7550

**

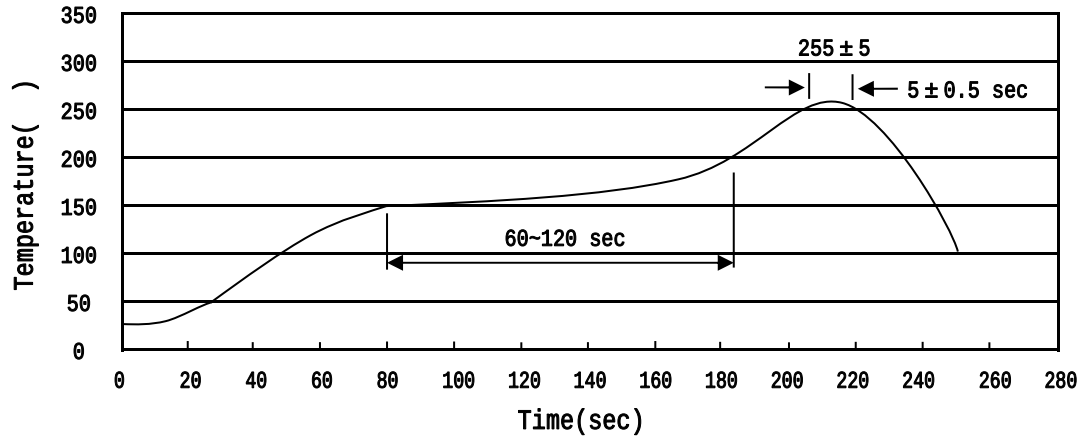
Note:

Q: Automobile halogen-free product Code

7550: Product Type

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

1		150	200		60	120sec;	1.Preheating:150~200 , Time:60~120sec.
2		255±5				5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3				2	10	/sec.	3. Cooling Speed: 2~10 /sec.

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

Package Type	Units					Dimension		(unit mm3)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	6	42,000	7 ×12	180×120×180	390×385×205