/ Descriptions

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

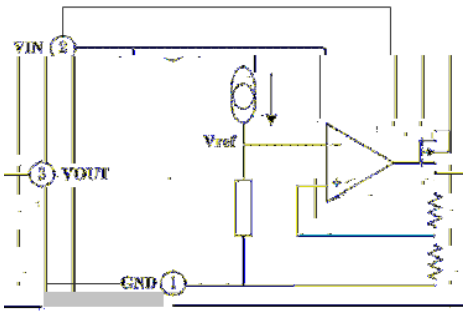
/ Features

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

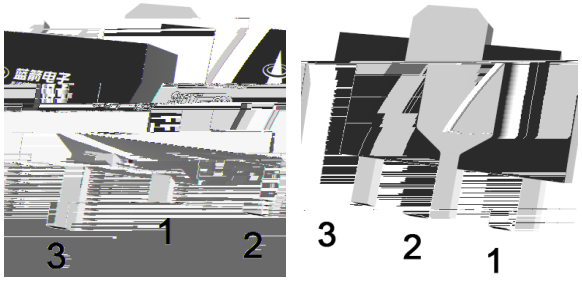
/ Applications

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

/ Equivalent Circuit



/ Pinning



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	$R_{\theta JA}$	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]

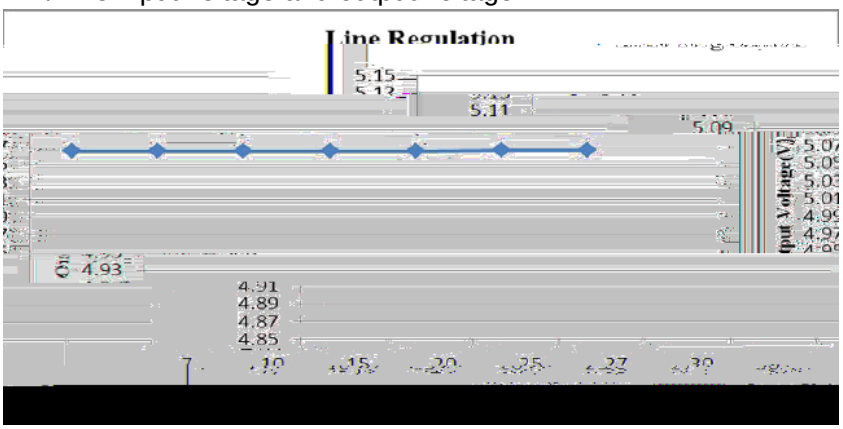
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
The Output Voltage	V_{OUT}	V_{IN}=7.0V,I_{OUT}=10mA	4.90	5.00	5.10	V
The Output Current	I_{OUT}	V_{IN}=7.0V	100	150		mA
Load Regulation	V_{OUT}	V_{IN}=7.0V 1mA ≤ I_{OUT} ≤ 150mA		25	60	mV
Low Dropout	V_{DIF}	I_{OUT}=1mA, V_{OUT}=2%		25	55	mV
Static Power	I_{SS}	V_{IN}=7.0V		2.5	4.0	μA
[redacted]	[redacted]	V ≤ V_{IN} ≤ 30V I_{OUT}=10mA			0.2	%/V
The Input Voltage	V_{IN}					

[redacted]

[redacted]

/ Electrical Characteristic Curve

/ The input voltage and output voltage

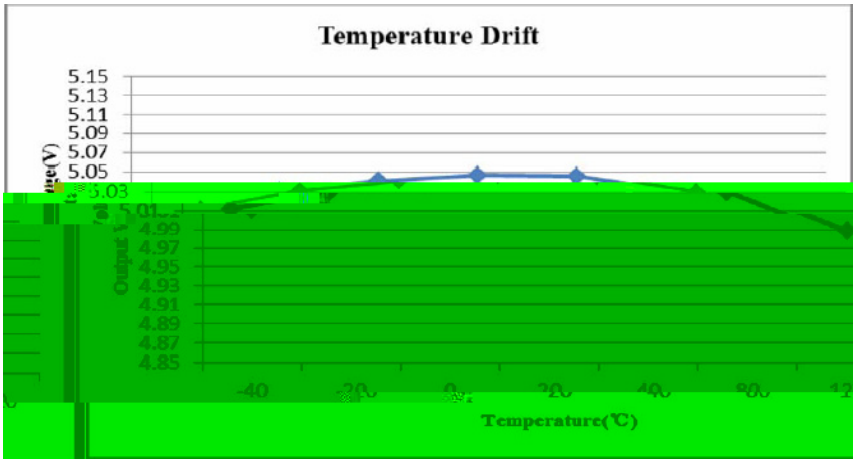


I_{OUT}=10mA

/ The output voltage and load current

V_{IN}=7.0V

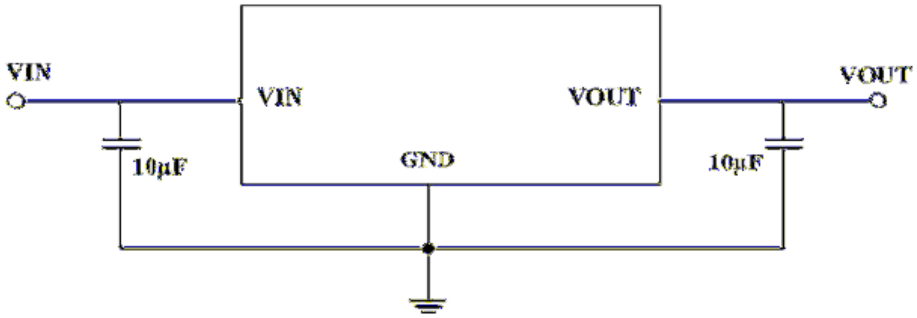
/ The output voltage and temperature



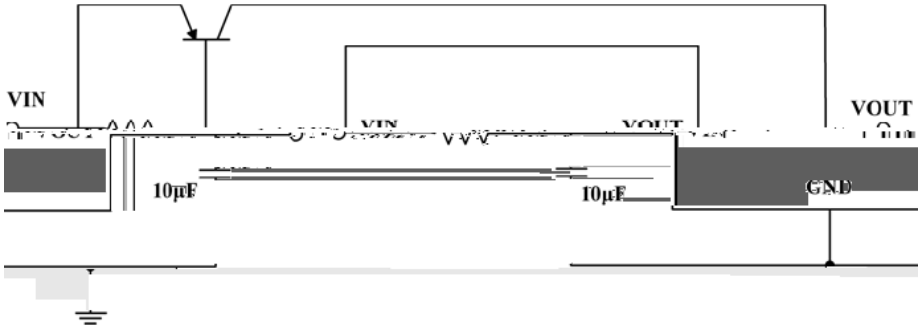
V_{IN}=7.0V I_{OUT}=10mA

/ Typical Application Circuit

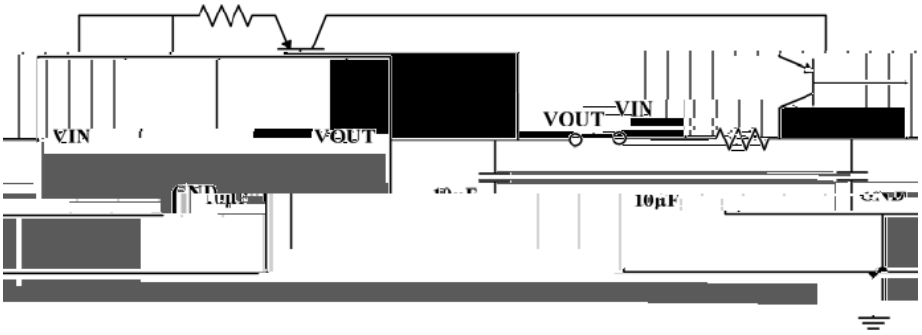
/ Basic Application



/ High Output Current Voltage Regulator

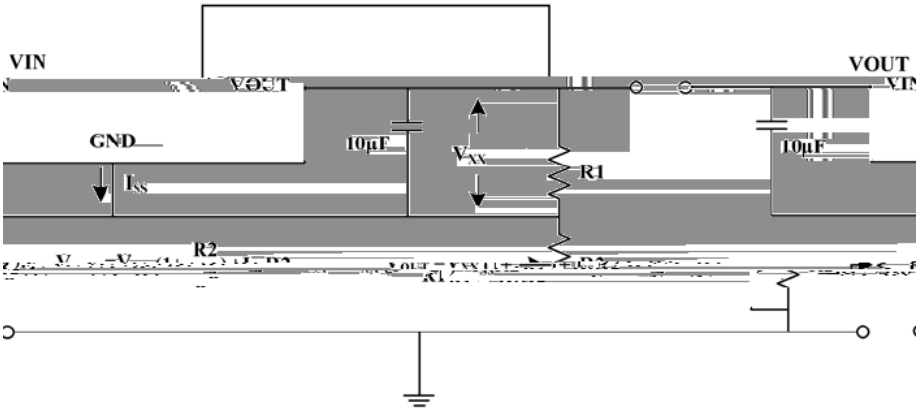


/ Short-Circuit Protection

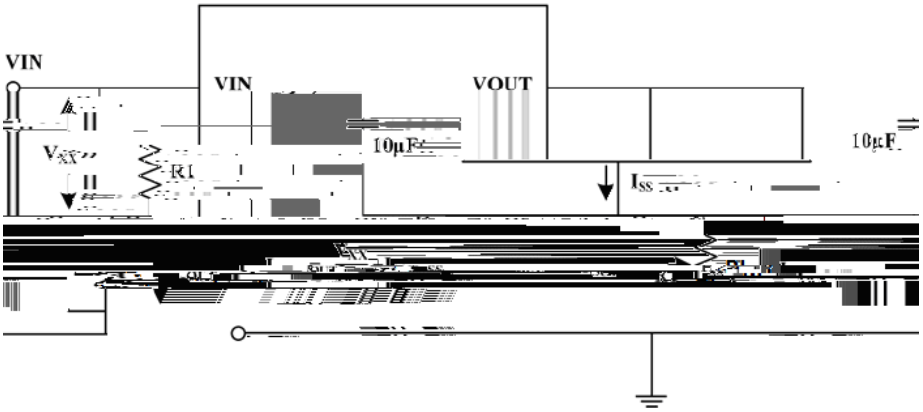


/ Typical Application Circuit

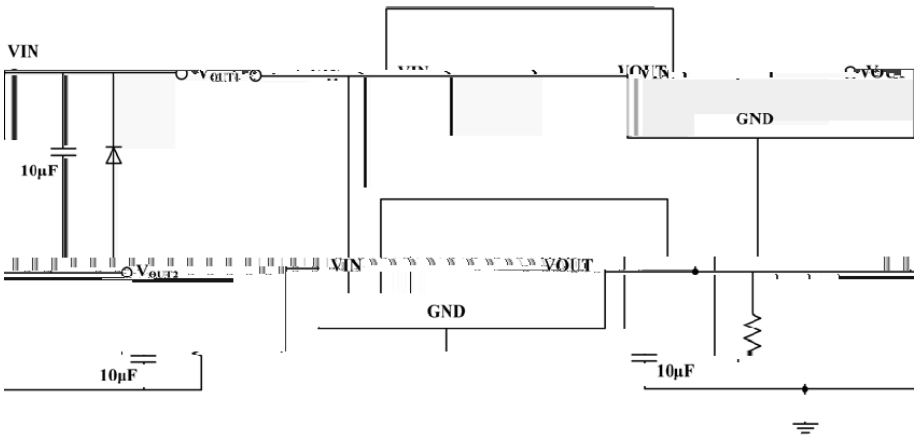
/ Circuit for Increasing Output Voltage



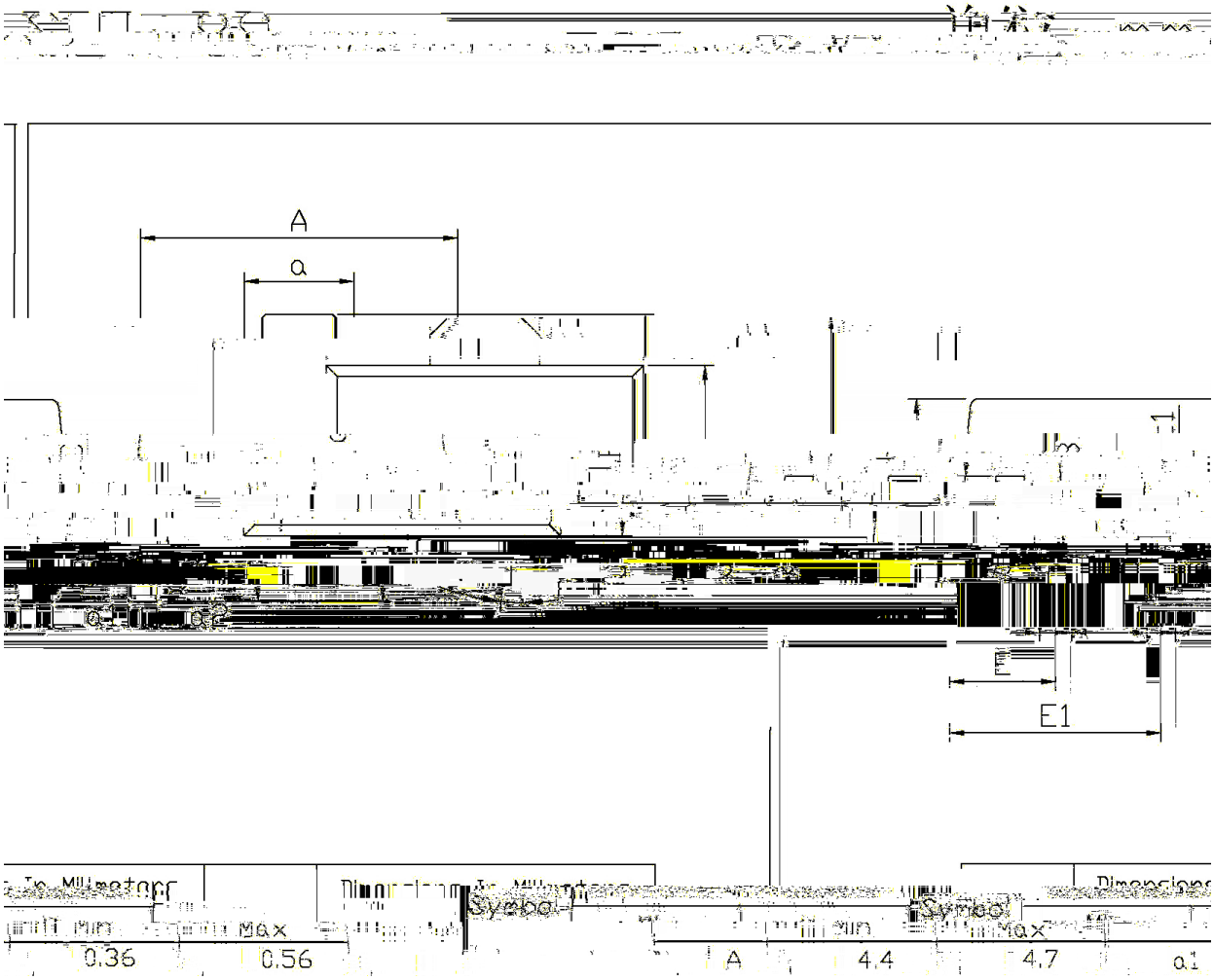
/ Constant Current Regulator



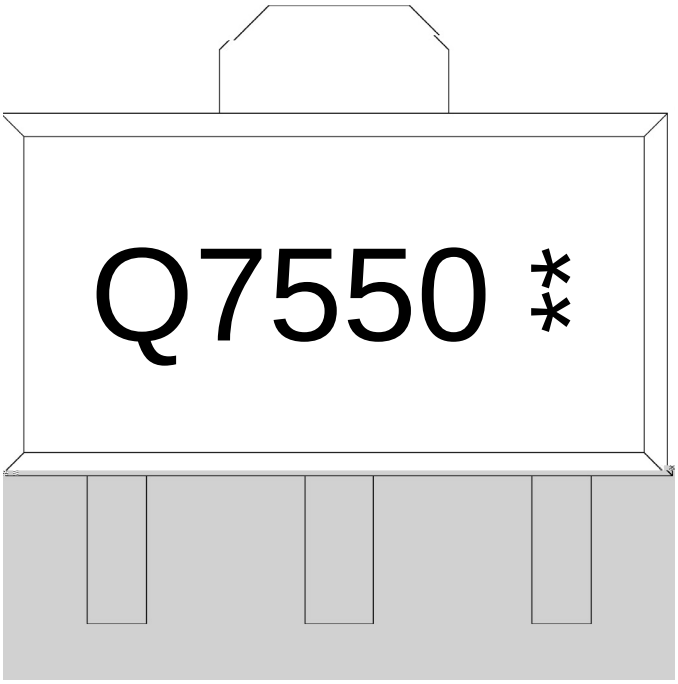
/ Double Output Circuit



/ Package Dimensions



/ Marking Instructions



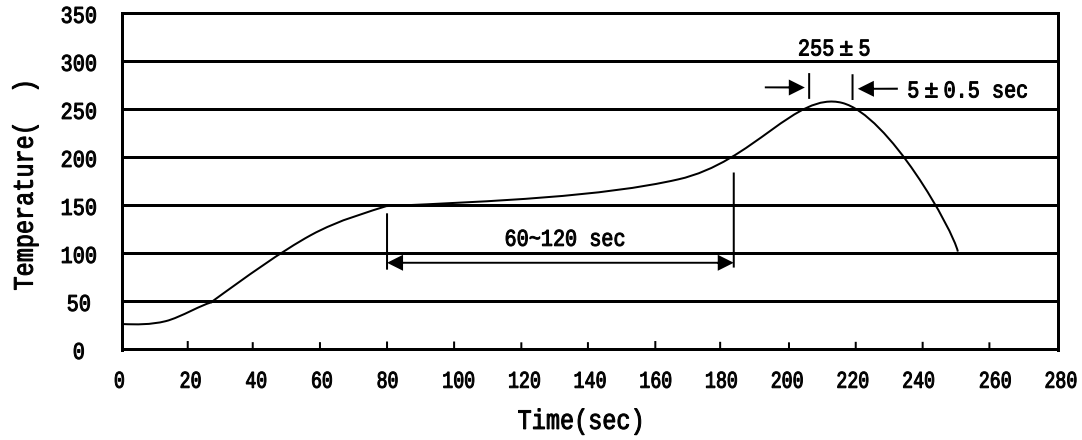
Q

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.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm)
	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

/ Notices