

/ Descriptions

SOT-89

Voltage Regulator in a SOT-89 Plastic Package.

/ Features

,

800mA,

AEC-Q100

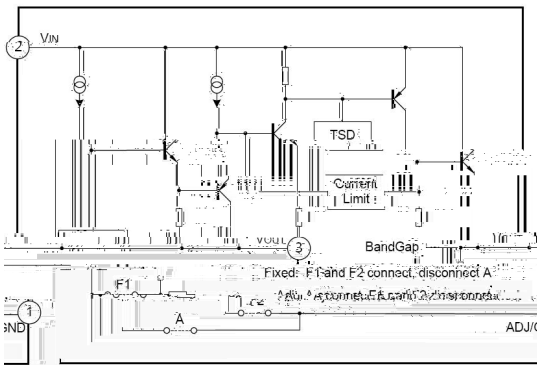
High efficiency, Low dropout voltage.output current up to 800mA, internal current and thermal limit, Qualified to AEC-Q100 Standards for High Reliability, HF Product.

/ Applications

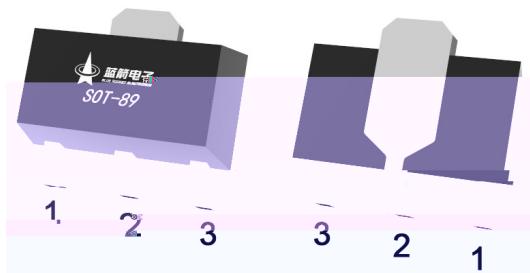
Voltage Regulator, Meet the stringent requirements of automotive applications.

/

Equivalent Circuit or Application Circuit



/ Pinning



Pin1 GND/ADJ

Pin2 VOUT

Pin3 VIN

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Input voltage	V_I	15	V
Storage temperature range	T_{stg}	-40 150	

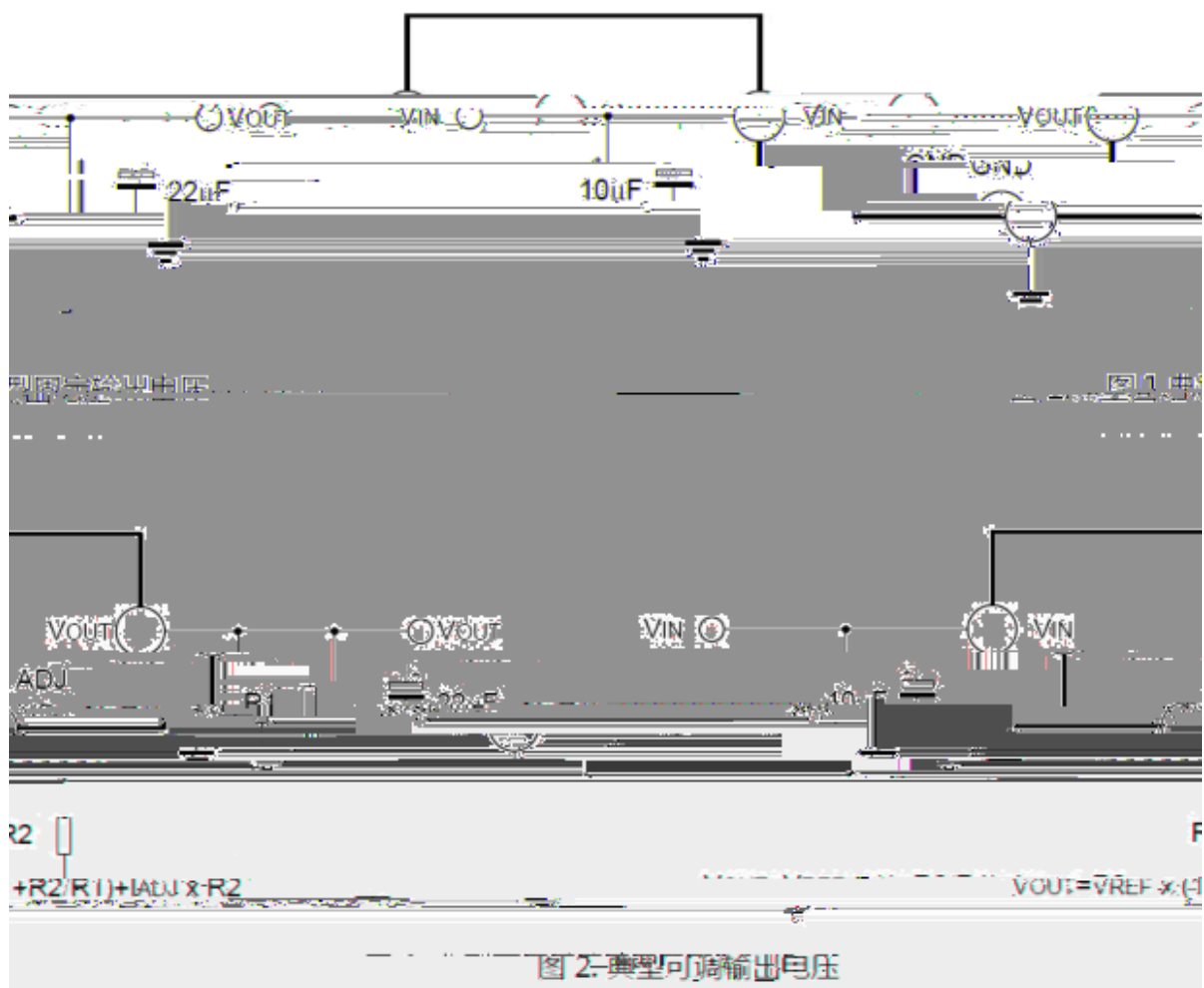
/ Electrical Characteristics($T_a=25$)

Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit
Reference Voltage	V_{ref}	BRLD1117TQ- Adj	$V_{in}-V_o=2V$ $T_j=25$ $I_o=10mA$	1.225	1.25	1.275	V
			10mA I_o 800mA 1.4V ($V_{in}-V_o$) 10V	1.225	1.25	1.275	
Output Voltage	V_o	BRLD1117TQ-1.2	$V_{in}=3.2V$ $T_j=25$ $I_o=10mA$	1.176	1.2	1.224	V
			10mA I_o 800mA, 3V V_{in} 8V	1.176	1.2	1.224	
		BRLD1117TQ-1.8	$V_{in}=3.8V$ $T_j=25$ $I_o=10mA$	1.764	1.8	1.836	V
			0 I_o 800mA, 3.3V V_{in} 8V	1.764	1.8	1.836	
		BRLD1117TQ-2.5	$V_{in}=4.5V$ $T_j=25$ $I_o=10mA$	2.45	2.5	2.55	V
			0 I_o 800mA, 3.9V V_{in} 10V	2.45	2.5	2.55	
		BRLD1117TQ-3.3	$V_{in}=5.3V$ $T_j=25$ $I_o=10mA$	3.234	3.3	3.366	V
			0 I_o 800mA, 4.75V V_{in} 10V	3.234	3.3	3.366	
		BRLD1117TQ-5.0	$V_{in}=7V$ $T_j=25$ $I_o=10mA$	4.9	5	5.1	V
			0 I_o 800mA, 6.5V V_{in} 15V	4.9	5	5.1	
Load Regulation	V_o	BRLD1117TQ-Adj	$V_{in}-V_o=3V$ 10mA I_o 800mA			30	mV
		BRLD1117TQ-1.2	$V_{in}=3V$ 10mA I_o 800mA			30	mV
		BRLD1117TQ-1.8	$V_{in}=3.3V$ 0mA I_o 800mA			30	mV
		BRLD1117TQ-2.5	$V_{in}=3.9V$ 0mA I_o 800mA			30	mV
		BRLD1117TQ-3.3	$V_{in}=4.75V$ 0mA I_o 800mA			30	mV
		BRLD1117TQ-5.0	$V_{in}=6.5V$ 0mA I_o 800mA			30	mV

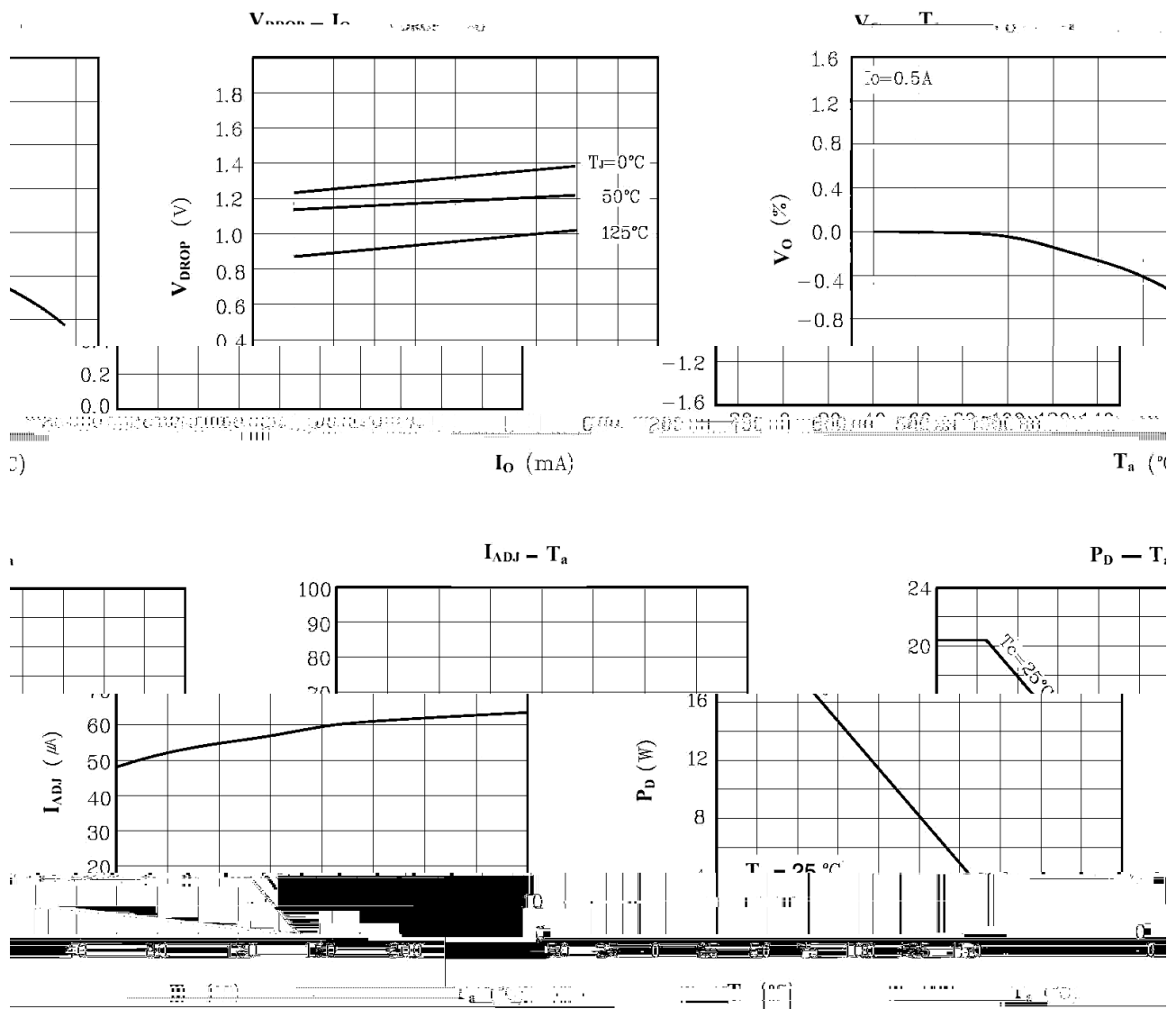
Parameter	Symbol	Type	Test Conditions	Min	Typ	Max	Unit
		BRLD1117TQ-Adj	I _o =10mA 1.5V (V _{in} -V _o) 13.75V			23	mV

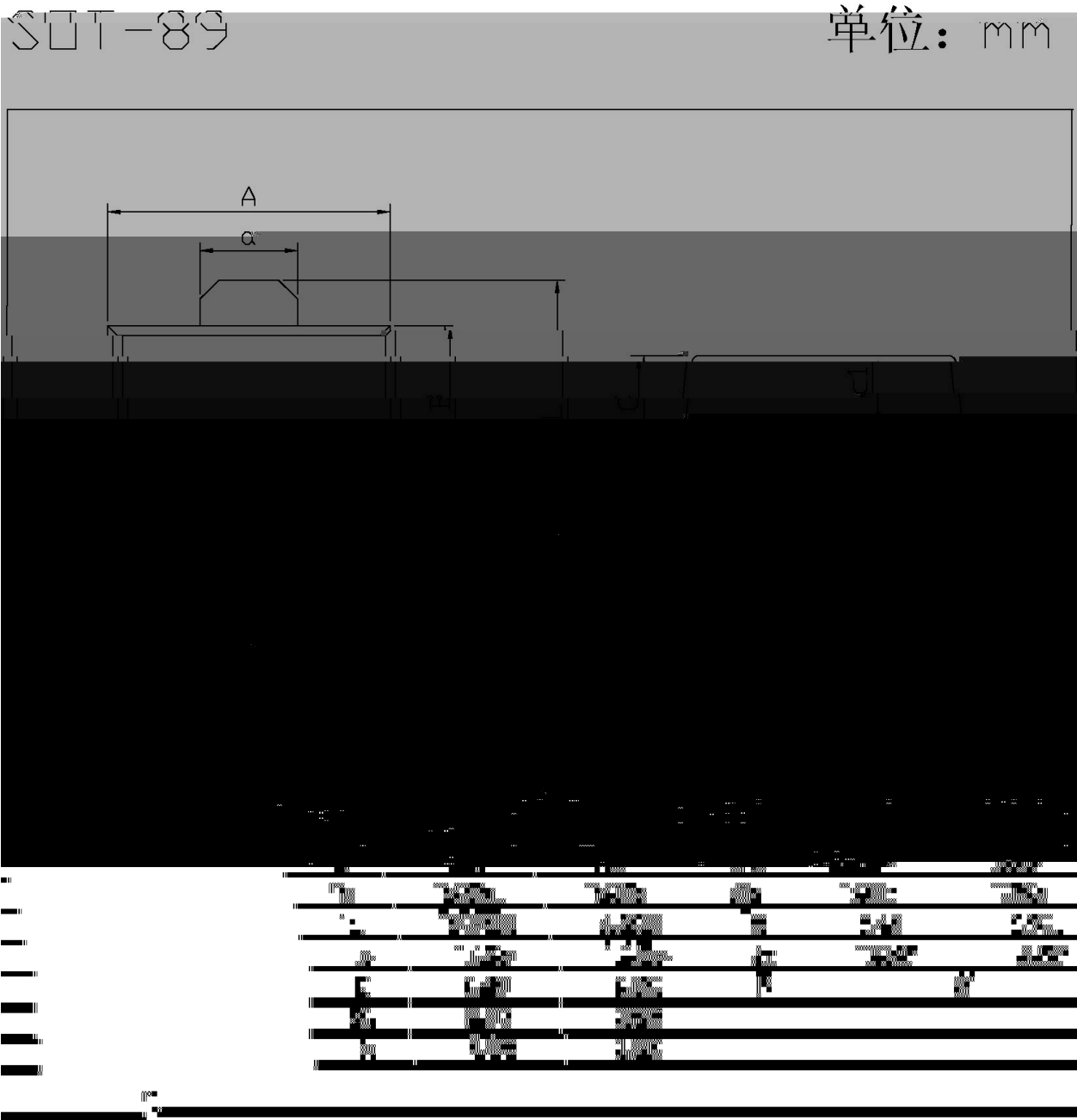
Line Regulation V_o

/ Typical Application Circuit

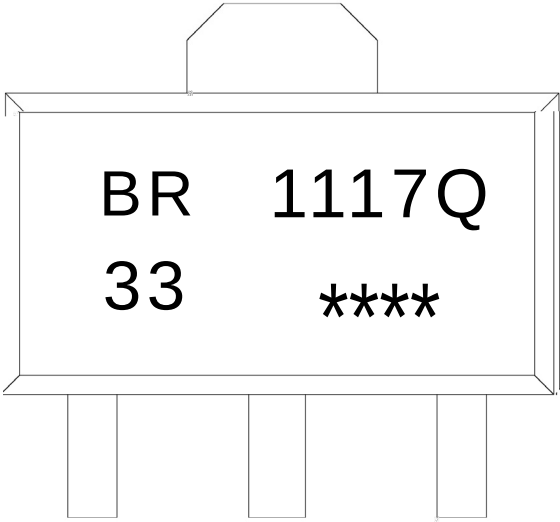


/ Electrical Characteristic Curve





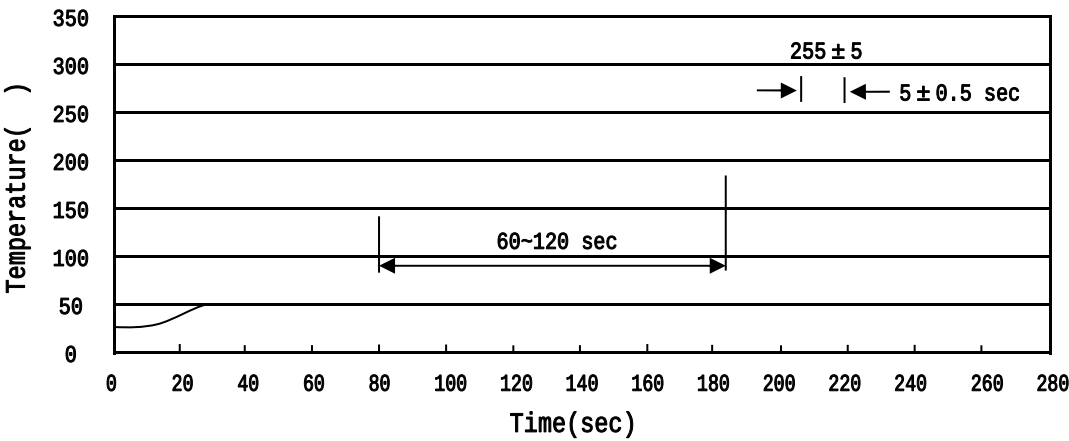
/ Marking Instructions



BR	
1117	
Q	
33:	3.3V

Note:	
BR:	Company Code
1117:	Product Type Code
Q:	Automobile halogen-free product Code
33:	On Behalf 3.3V
****:	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