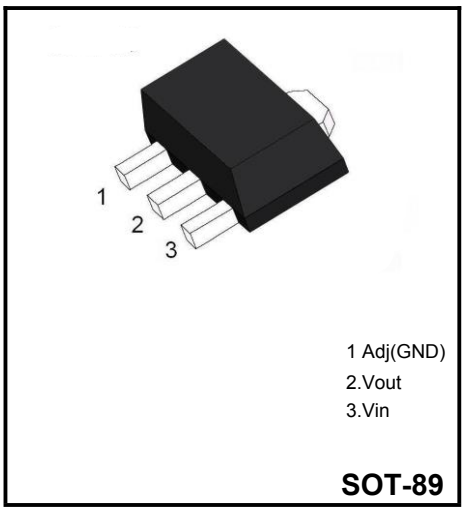
Low Dropout Linear Regulator



Features

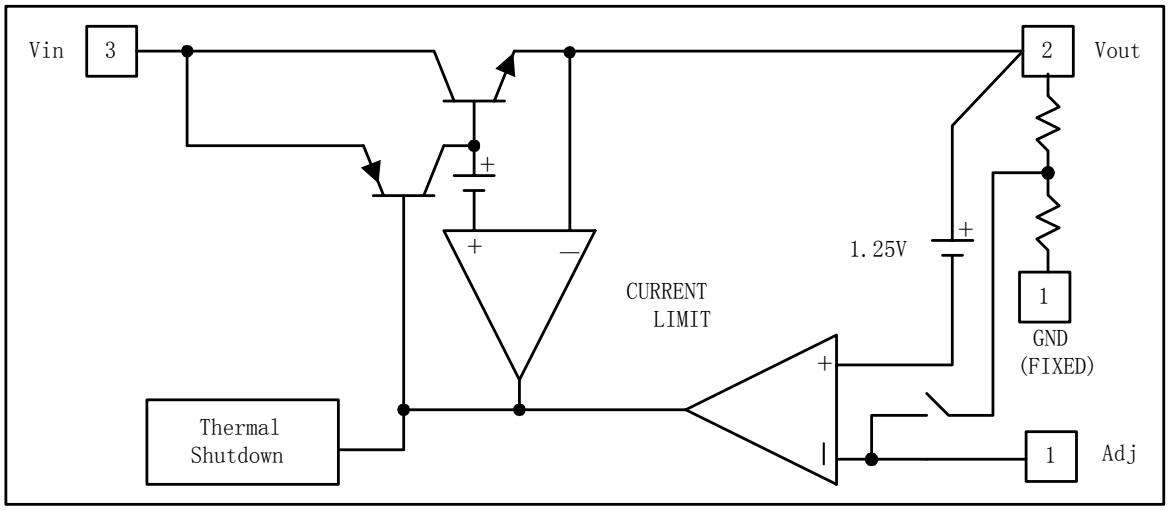
- Low dropout voltage
- Load regulation: 0.2% typic al
- Optimized for Low Voltage
- On-chip thermal limiting
- 1A Adjustable/Fixed Low Dropout Linear Regulator
- Three-terminal adjustable or fixed low drop out

  1.2V,1.25V,1.5V,1.8V, 1.9V, 2.5V,2.85V, 3.3V, 5V. Regulators

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Maximum Input Voltage	V_{in}	18	V
Power Dissipation	P_D	Internally Limited	
Operating Junction Temperature Range	T_J	150	℃
Storage Temperature	T_{ST}	-65 to +150	℃

Block Diagram



Electrical Characteristics (Ta=25℃, unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Reference Voltage	V_{REF}	YFW1117SI-ADJ	10mA≤I_{OUT}≤800mA, 1.5V≤V_{IN} - V_{OUT} ≤12V	1.225	1.25	1.275	V
Output Voltage	V_{OUT}	YFW1117SI-1.2	0≤I_{OUT}≤800mA, 2.6V≤V_{IN} - V_{OUT} ≤12V	1.175	1.2	1.225	
		YFW1117SI-1.25	0≤I_{OUT}≤800mA, 2.65 V≤V_{IN} - V_{OUT} ≤12V	1.238	1.25	1.275	
		YFW1117SI-1.5	0≤I_{OUT}≤800mA, 2.9V≤V_{IN} - V_{OUT} ≤12V	1.47	1.5	1.53	
		YFW1117SI-1.8	0≤I_{OUT}≤800mA, 3.2V≤V_{IN} - V_{OUT} ≤12V	1.764	1.8	1.836	
		YFW1117SI-1.9	0≤I_{OUT}≤800mA, 3.3V≤V_{IN} - V_{OUT} ≤12V	1.862	1.9	1.938	
		YFW1117SI-2.5	0≤I_{OUT}≤800mA, 3.9V≤V_{IN} - V_{OUT} ≤12V	2.45	5.5	2.55	
		YFW1117SI-2.85	0≤I_{OUT}≤800mA, 4.25V≤V_{IN} - V_{OUT} ≤12V	2.822	2.85	2.878	
		YFW1117SI-3.3	0≤I_{OUT}≤800mA, 4.75V≤V_{IN} - V_{OUT} ≤12V	3.234	3.3	3.366	
		YFW1117SI-5.0	0≤I_{OUT}≤800mA, 6.5V≤V_{IN} - V_{OUT} ≤12V	4.9	5	5.1	
Line Regulation	$\triangle V_{OUT}$	YFW1117SI-ADJ	Iout=10mA,1.5V≤Vin-Vout≤12V		0.035	0.2	%
		YFW1117SI-1.2	Iout=10mA,2.6V≤Vin-Vout≤12V		9	12	mV
		YFW1117SI-1.25	Iout=10mA,2.65V≤Vin-Vout≤12V				
		YFW1117SI-1.5	Iout=10mA,2.9V≤Vin-Vout≤12V				
		YFW1117SI-1.8	Iout=10mA,3.2V≤Vin-Vout≤12V				
		YFW1117SI-1.9	Iout=10mA,3.3V≤Vin-Vout≤12V				
		YFW1117SI-2.5	Iout=10mA,3.9V≤Vin-Vout≤12V				
		YFW1117SI-2.85	Iout=10mA,4.25V≤Vin-Vout≤12V				
		YFW1117SI-3.3	Iout=10mA,4.75V≤Vin-Vout≤12V				
		YFW1117SI-5.0	Iout=10mA,6.5V≤Vin-Vout≤12V				
Load Regulation	$\triangle V_{OUT}$	YFW1117SI-ADJ	V_{in}-V_{out}=3V, 10mA≤I_{out}≤800mA		0.2	0.4	%
		YFW1117SI-1.2	V_{in}=2.6V, 10mA≤I_{out}≤800mA		3	10	mV
		YFW1117SI-1.25	V_{in}=2.65V, 10mA≤I_{out}≤800mA				
		YFW1117SI-1.5	V_{in}=2.9V, 10mA≤I_{out}≤800mA				
		YFW1117SI-1.8	V_{in}=3.2V, 10mA≤I_{out}≤800mA				
		YFW1117SI-1.9	V_{in}=3.3V, 10mA≤I_{out}≤800mA				
		YFW1117SI-2.5	V_{in}=3.9V, 10mA≤I_{out}≤800mA				
		YFW1117SI-2.85	V_{in}=4.25V, 10mA≤I_{out}≤800mA				
		YFW1117SI-3.3	V_{in}=4.75V, 10mA≤I_{out}≤800mA				
		YFW1117SI-5.0	V_{in}=6.5V, 10mA≤I_{out}≤800mA				
Dropout Voltage	V_{IN}-V_{OUT}	YFW1117SI-XXX	ΔVout,ΔV_{REF}=1%, I_{OUT}=0.1A		1.11	1.2	V
			ΔVout,ΔV_{REF}=1%, I_{OUT}=0.5A		1.18	1.25	
			ΔVout,ΔV_{REF}=1%, I_{OUT}=0.8A		1.26	1.3	
Current Limit	I_{limit}	YFW1117SI-XXX	V_{IN}-V_{OUT}=5V , T_J = 25℃	1.25	1.4	1.6	A
		YFW1117SI-XXX	YFW1117-ADJ		5	10	mA
Adjust Pin Current	I_{ADJ}				55	120	uA
Adjust Pin Current Change	IChange				0.2		

Electrical Characteristics (Ta=25℃, unless otherwise specified)

Quiescent Current	I_Q	YFW1117SI-1.2	Vin-Vout=1.25V		4	8	mA
		YFW1117SI-1.25					
		YFW1117SI-1.5					
		YFW1117SI-1.8					
		YFW1117SI-1.9					
		YFW1117SI-2.5					
		YFW1117SI-2.85					
		YFW1117SI-3.3					
		YFW1117SI-5.0					

Typical Characteristic

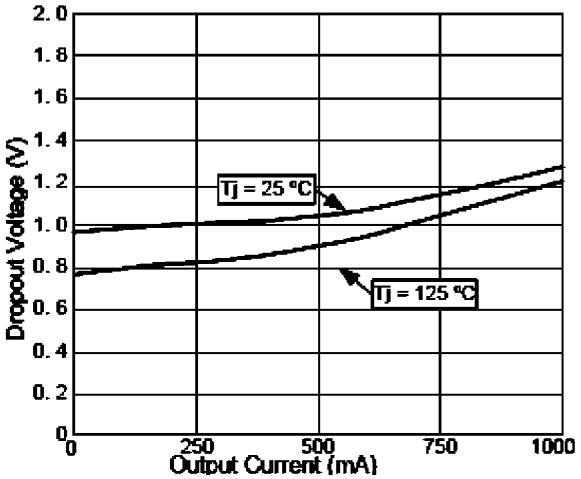


Fig.1 Dropout Voltage vs Output Current

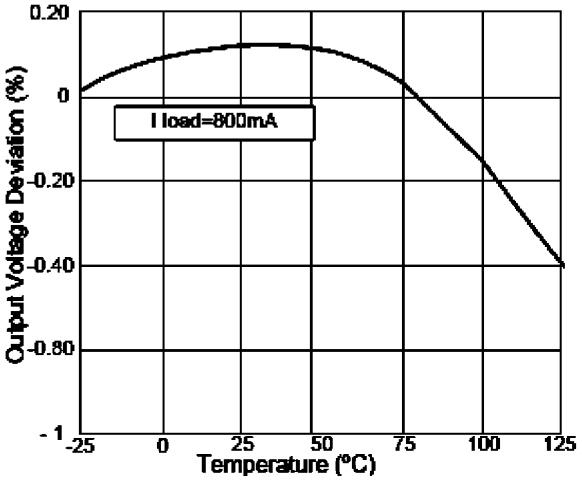


Fig.2 Load Regulation vs Temperature

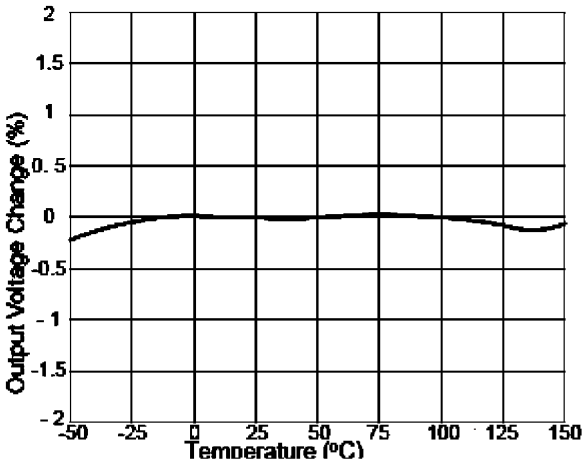


Fig.3 Percent Change in Output Voltage vs Temperature

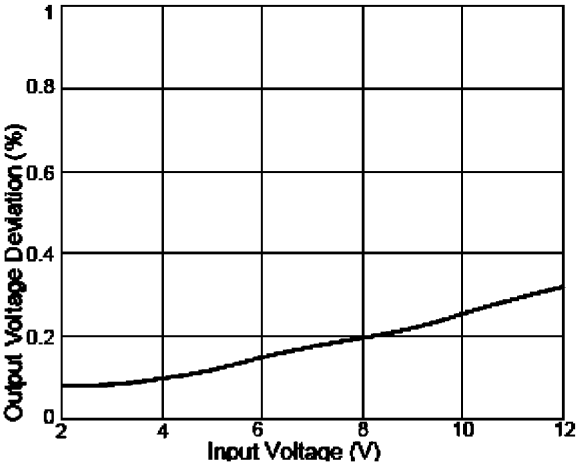


Fig.4 Line Regulation

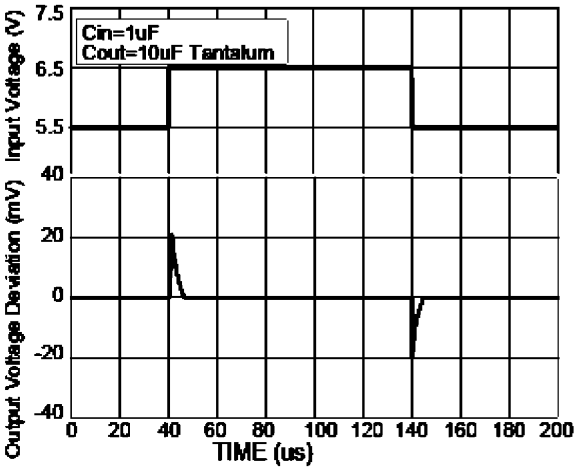


Fig.5 Line Transient Response

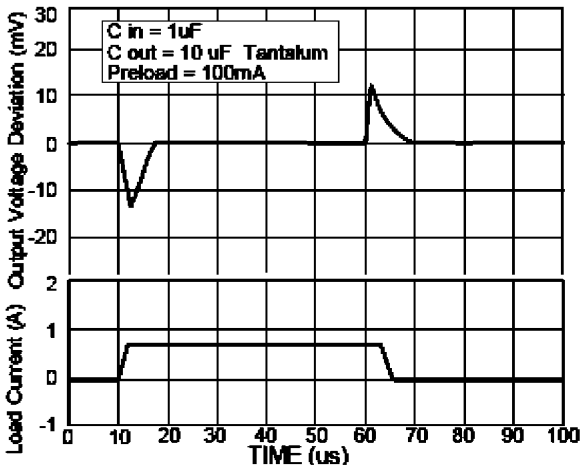


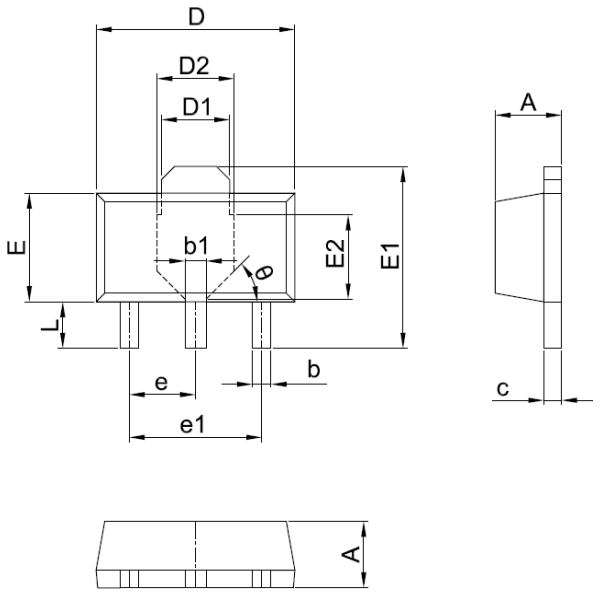
Fig.6 Load Transient Response

Ordering information

Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel,7"reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

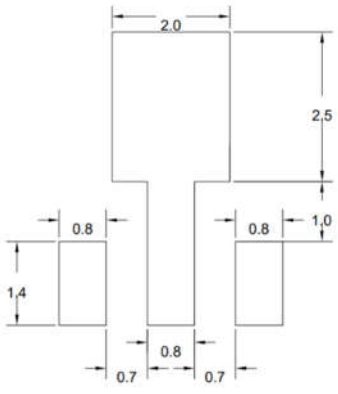
Package Dimensions

SOT-89



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

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