

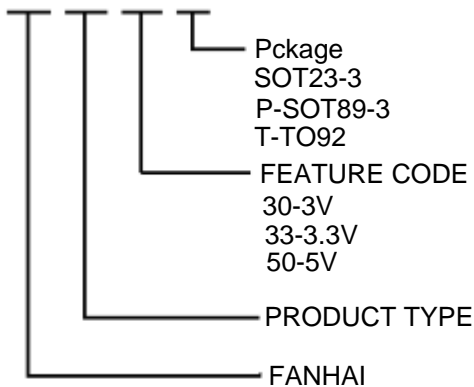
Features

- | Ultra low quiescent current: 3.0uA(typ)
- | High input voltage (up to 18v)
- | Low dropout voltage :80mV@Iout=40mA
(Vout=3.3v)
- | Output voltage accuracy : ±2%
- | Maximum output current : 300mA
(within max.power dissipation,Vout=3.3V)
- | Low temperature coefficient
- | Package : SOT23-3、 TO-92、 SOT89-3

General Description

The FS73XX series are a group of positive voltage output,three –pin regulator,that provide a high current even when the input/output Voltage differerential is small.Low power consumption and high accuracy is achieved through CMOS technology.They allow input voltages as high as 18V.

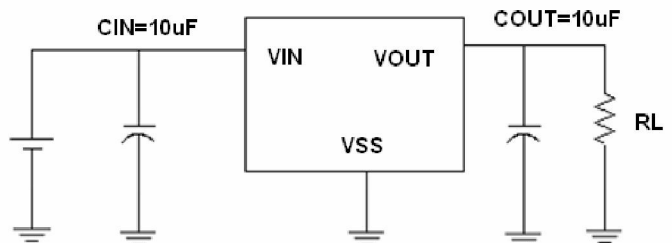
Selection Guide



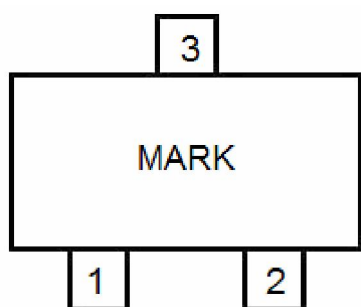
Typical Application

- | Cameras, video recorders
- | Voltage regulator for microprocessor
- | Voltage regulator for LAN cards
- | Wireless communication equipment
- | Audio/Video equipment

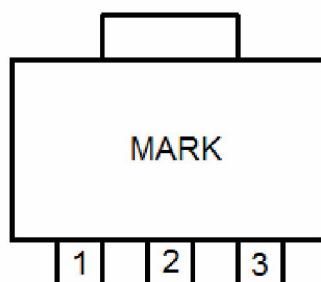
Typical Application Circuit



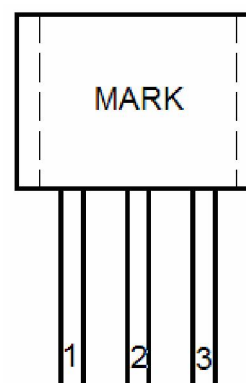
Pin Configuration



SOT23-3



SOT89-3



TO-92

Pin Assignment

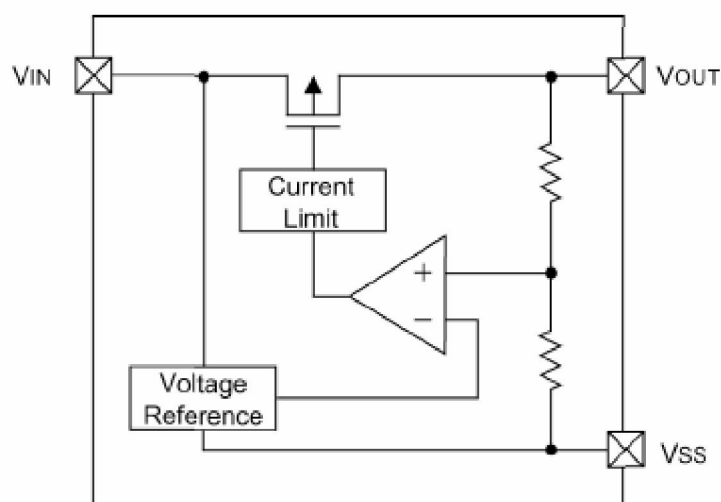
FS73XX

Pin Number		Pin Name	Functions
SOT89-3/TO-92	SOT23-3		
1	1	V_{SS}	Ground
2	3	V_{IN}	Input
3	2	V_{OUT}	Output

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Units
Input Voltage	V_{IN}	18	V
Output Voltage	V_{OUT}	$V_{SS}-0.3 \sim V_{IN} +0.3$	V
Output Current	I_{out}	500	mA
Operating Temperature Range	T_{OPR}	-40 ~ + 85	
Storage Temperature Range	T_{STG}	- 40 ~ + 125	
Power Dissipation	SOT89-3	500	mW
	TO-92	500	
	SOT23-3	300	

Block Diagram



Electrical Characteristics

FS7333

($V_{IN} = V_{OUT} + 1.0V$, $C_{IN} = C_L = 10\mu F$, $T_a = 25^\circ C$, unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Output Voltage	$V_{OUT(E)}$ (Note 2)	$I_{OUT} = 40mA$, $V_{IN} = V_{OUT} + 1V$	X 0.98	$V_{OUT(T)}$ (Note 1)	X 1.02	V
Input Voltage	V_{IN}				18	V
Maximum Output Voltage	I_{OUT_max}	$V_{IN} = V_{OUT} + 1V$	250			mA
Load Regulation	V_{OUT}	$V_{IN} = V_{OUT} + 1V$, $1mA \leq I_{OUT} \leq 60mA$		15	40	mV
Dropout Voltage (Note 3)	V_{dif}	$I_{OUT} = 40mA$		80		mV
Supply Current	I_{SS}	$V_{IN} = V_{OUT} + 1V$		3	4	μA
Line Regulations	$\frac{V_{OUT}}{V_{IN} \times V_{OUT}}$	$I_{OUT} = 40mA$ $V_{OUT} + 1V \leq V_{IN} \leq 18V$		0.1	0.2	%/V
V_{OUT} / T_a	Temperature Coefficient	$V_{IN} = V_{OUT} + 1V$, $I_{OUT} = 40mA$ $-40 < T_a < 85$		± 0.7		mV/

FS7340(V_{IN}= V_{OUT}+1.0V , C_{IN}=C_L=10uF , Ta=25°C, unless otherwise noted)

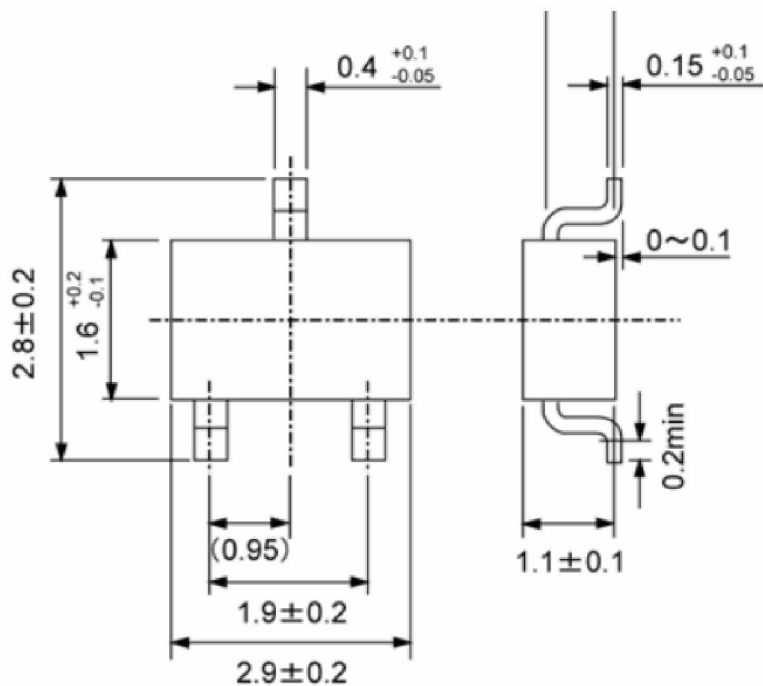
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Output Voltage	V _{OUT} (E) (Note 2)	I _{OUT} =40mA, V _{IN} =V _{out} +1V	X 0.98	V _{OUT} (T) (Note 1)	X 1.02	V
Input Voltage	V _{IN}				18	V
Maximum Output Voltage	I _{OUT_max}	V _{IN} =V _{out} +1V	250			mA
Load Regulation	V _{OUT}	V _{IN} =V _{out} +1V, 1mA I _{OUT} 60mA		15	40	mV
Dropout Voltage (Note 3)	V _{dif}	I _{OUT} =40mA		70		mV
Supply Current	I _{SS}	V _{IN} =V _{out} +1V		3	4	μA
Line Regulations	$\frac{V_{OUT}}{V_{IN} \times V_{OUT}}$	I _{OUT} =40mA V _{out} +1V V _{IN} 18V		0.1	0.2	%/V
V _{OUT} / Ta	Temperature Coefficient	V _{IN} =V _{out} +1V, I _{OUT} =40mA -40 <Ta<85		±0.7		mV/

Note :

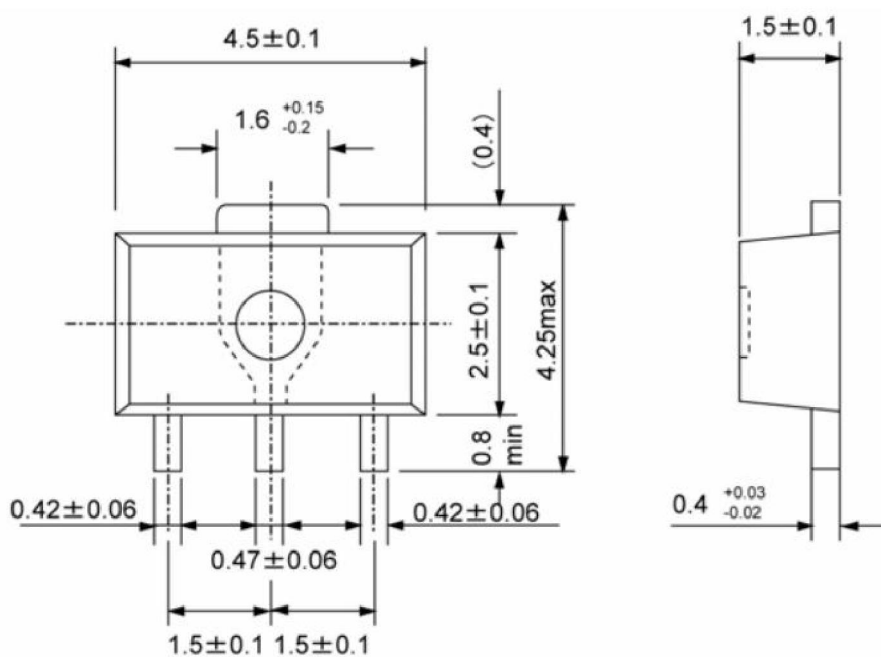
1. V_{OUT} (T) : Specified Output Voltage2. V_{OUT} (E) :Effective Output Voltage (ie. The output voltage when “V_{OUT} (T)+1.0V”is provided at the Vin pin while maintaining a certain I_{out} value.)3. V_{DIF} : V_{IN1} -V_{OUT} (E)'V_{IN1} : The input voltage when V_{OUT}(E)' appears as input voltage is gradually decreased.V_{OUT} (E)'=A voltage equal to 98% of the output voltage whenever an amply stabilized I_{out} and {V_{OUT} (T)+1.0V} is input.

Packaging Information:

SOT23-3



SOT89-3



TO-92

