GENERYL DESCRIPTION

BP6219 series are a group of positive voltage output, high precise, and high PSRR and low power consumption voltage regulator. Voltages are selectable in 100mV steps within a range of 1.2V to 3.6V. It also can be customized on command.

BP6219 series have excellent load and line transient response and good temperature characteristics, which can assure the stability of chip and power system. And it uses trimming technique to guarantee output voltage accuracy within ±2%.

BP6219 series are available in SOT-23-3, SOT-23-5, SOT-89-3 and TO-92 packages, which are lead (Pb)- free.

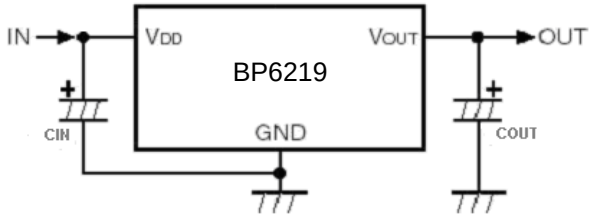
FEYTURES

- Low Quiescent Current: 2uA at 5V
- 60dB PSRR at 100Hz
- Low Output Noise: 44uVRMS
- Low Dropout: 280mV at 150mA load
- Low Temperature Coefficient: ±100ppm/°C
- Excellent Line Regulation: 0.05%/V
- Highly Accurate: ±2%

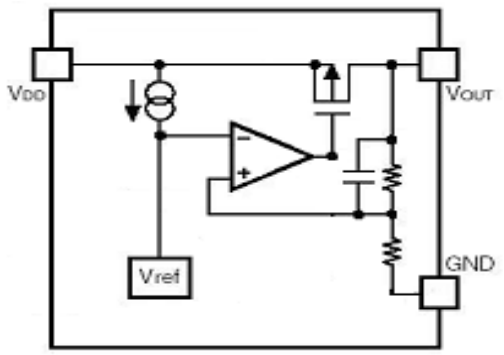
YPPLICYTIONS

- Reference Voltage Source
- Battery Powered Equipment
- Hand-Hold Equipment
- Wireless LAN
- GPS Receivers

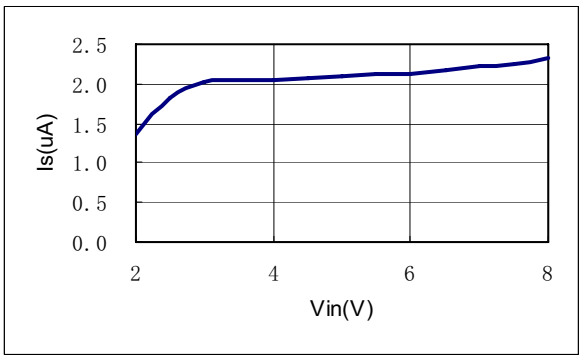
TYPICYL YPPLICYTION



KLOCK DIYGRYM



Supply Current vs. Input Voltage



Pin Assignment

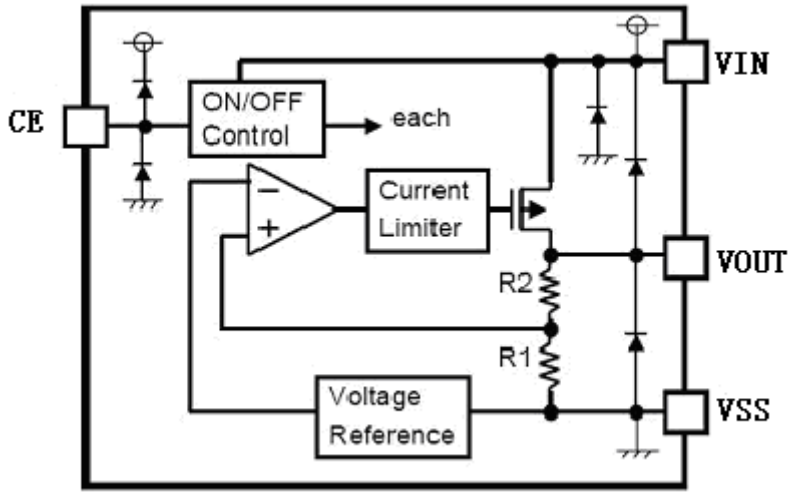
BP6219Axx

pin assignment No.		Symbol	Pins describe
SOT23-3	**SOT89-3**		
1	1	Vss	Device ground pins
2	3	Vout	Output voltage side
3	2	Vin	Input voltage side

BP6219Cxx

pin assignment No.		Symbol	Pins describe
SOT23-5	**SOT89-5**		
1	4	Vin	Input voltage side
2	2	Vss	Device ground pins
3	3	Vce	CE side
4	1	NC	NULL
5	5	Vout	Output voltage side

Block Diagram



Limit Parameters

Parameter		Symbol	Ultimate Value	Unit
Vin		V_{IN}	9	V
Vout		I_{out}	500	mA
Vout		V_{out}	Vss-0.3 ~ Vout+0.3	V
PDMAX	SOT23	Pd	300	mW
	SOT89	Pd	500	mW
Store temperature		T_{Opr}	-25 ~ +85	℃
Operating Temperature		T_{stg}	-40 ~ +125	℃
Welding temperature and time		T_{solder}	260℃, 10s	

Significant Parameter and Operating Characteristic

BP6219A/C

(Vin=Vout+1V,Cin=Cout=1u,Ta=25^{0}C Unless otherwise specified)

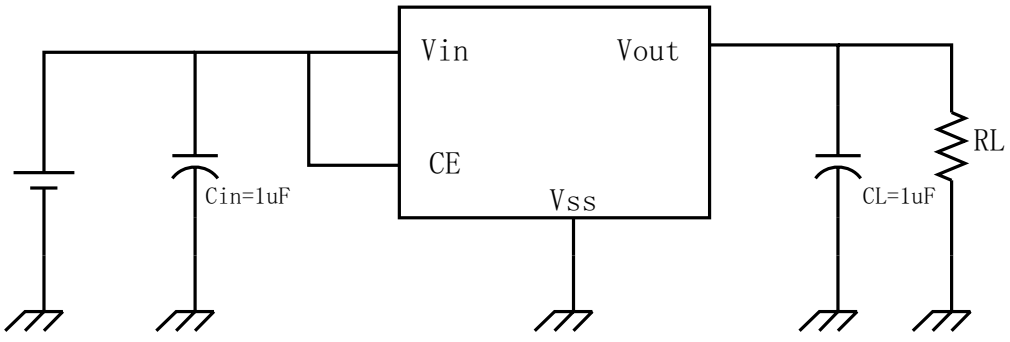
Speciality	Symbol	Condition	Min.	Typ.	Max.	Unit
Output Voltage	V_{OUT}(E) (Note 2)	I_{OUT}=40mA, V_{IN}=Vout+1V	X 0.98	V_{OUT} (T) (Note 1)	X 1.02	V
Input Voltage	V_{IN}				8.0	V
Max. Output Current	I_{OUT}max	V_{IN}=Vout+1V	200			mA
Load Characteristic	ΔV_{OUT}	V_{IN}=Vout+1V, 1mA≤I_{OUT}≤100mA		30		mV
Dropout Voltage (Note 3)	V_{dif1}	I_{OUT} =100mA		200		mV
	V_{dif2}	I_{OUT} =200mA		400		mV
Quiescent Current	I_{SS}	V_{IN}=Vout+1V		65		μA
Shutdown Current	I_{CEL}	Vce＝0V		0.1		μA
Line regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \bullet V_{OUT}}$	I_{OUT} =40mA Vout+1V ≤V_{IN}≤8V		0.05		%/V
Noiseoutput	en	I_{OUT} =40mA, 300Hz~50kHz		50		uVrms
PSRR	PSRR	Vin= [Vout+1]V +1Vp-pAC I_{OUT} =40mA,f=1kHz		70		dB

Caution :

1. V_{OUT} (T) ： Specified Output Voltage
2. V_{OUT} (E) ： Effective output voltage (That is, the values show how much the output voltage changes due to a change in the input voltage with the output current remaining unchanged)
3. V_{dif} ： $V_{IN1} - V_{OUT}(E)'$
   V_{IN1} (which is the input voltage at the point where the output voltage has fallen to 98% of the output voltage value after VIN was gradually decreased)

   V_{OUT} (E)'= V_{OUT} (E)X98%

TYPICAL APPLICATIONS



Package Drawing