



PJ6206A Series Low Dropout Linear Regulator

Features

- Quiescent Current: 6 μ A
- Input Voltage Range: Max.8V
- Output Current: 300mA
- Low Dropout Voltage: 290mV@100mA (VOUT=3.3V)
- Output Voltage: 1.2~5.0V
- Output Voltage Accuracy: $\pm 2\%$ (Typ.)
- Low Power Consumption

Applications

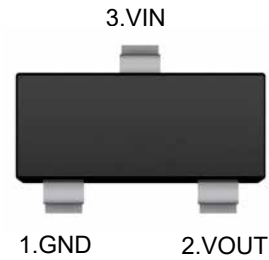
- Mobile Phones
- Battery powered equipment
- Portable game consoles
- Reference voltage sources

General Description

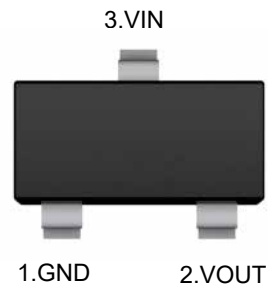
The PJ6206A Series are highly precise, low power consumption, 3 terminal, positive voltage regulators manufactured using CMOS technologies

The PJ6206A Series consists of a current limiter circuit, a driver transistor, a precision reference voltage and an error correction circuit. The series is compatible with low ESR ceramic capacitors. The current limiter's foldback circuit operates as a short circuit protection as well as the output current limiter for the output pin.

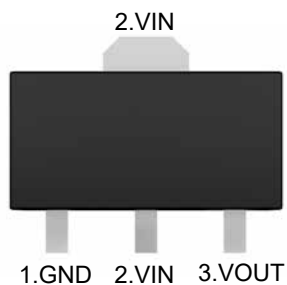
SOT-23



SOT-23-3



SOT-89



Ordering Information

PJ6206A- □□□□

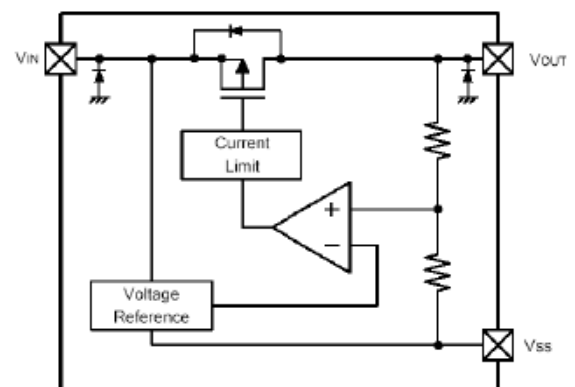
Package Type
SA : SOT-23
SC : SOT-23-3
SQ : SOT-89

Output Voltage
12 : 1.2V 15 : 1.5V 18 : 1.8V
25 : 2.5V 28 : 2.8V 30 : 3.0V
33 : 3.3V 50 : 5.0V

Output current tap
L : 300mA

Version Number

Block Diagram



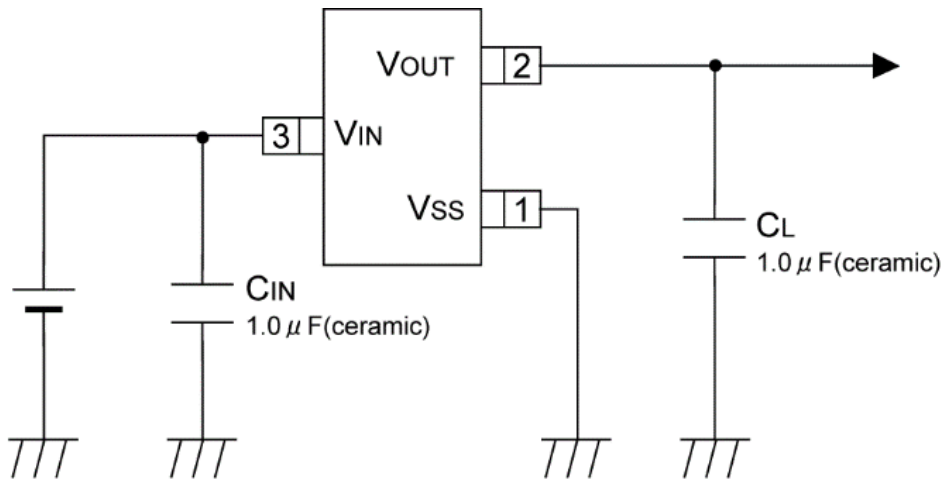


Absolute Maximum Ratings ^{Note1}

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Input Voltage	V_{IN}	-0.3 ~ +6	V
Output Voltage	V_{OUT}	-0.3 ~ ($V_{IN}+0.3$)	V
Output Current	I_{OUT}	300	mA
Power Dissipation	SOT-23	200	mW
	SOT-23-3	250	mW
	SOT-89	500	mW
Operating Temperature Range	T_{opr}	0 ~ 70	°C
Storage Temperature Range	T_{stg}	-55 ~ 125	°C

Typical Application Circuit





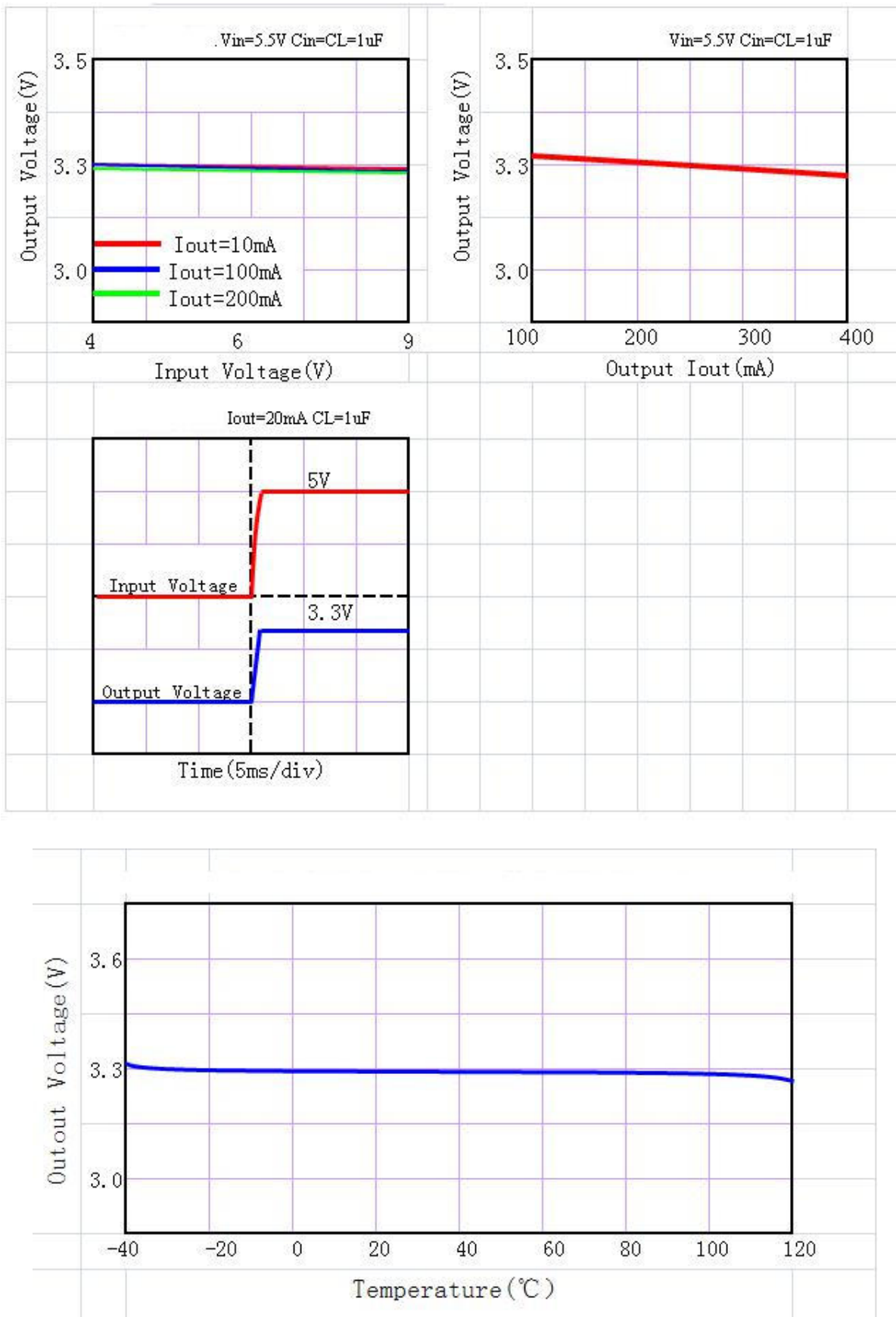
Electrical Characteristics

($V_{IN}=V_{OUT}+1$, $C_{IN}=C_{OUT}=1\mu F$, $T_A=25^\circ C$, unless otherwise noted.)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input Voltage	V_{IN}				8	V
Output Voltage Accuracy	ΔV_{OUT}	$I_{OUT}=30mA$	-2		+2	%
Quiescent Current	I_Q	$I_{OUT}=0mA$		6		μA
Dropout Voltage	V_{DROP}	$I_{OUT}=100mA, V_{OUT}\leq 1.5V$			570	mV
		$I_{OUT}=100mA, 1.8V\leq V_{OUT}\leq 1.5V$			420	
		$I_{OUT}=100mA, 2.8V\leq V_{OUT}\leq 5V$			350	
Line Regulation	ΔV_{LINE}	$V_{IN}=V_{OUT}+1$ to 8V $I_{OUT}=40mA$			0.2	%/V
Load Regulation	ΔV_{LOAD}	$1mA < I_{OUT} < 80mA$		12	30	mV
Output Voltage Temperature Coefficient	$TC_{V_{OUT}}$	$I_{OUT}=30mA$, $T_A=0\sim 70^\circ C$		± 100		ppm/ $^\circ C$
PSRR	f=1KHz	PSRR			-70	dB
Output Noise	E_{NO}	BW=10Hz~100KHz		160		μV_{RMS}



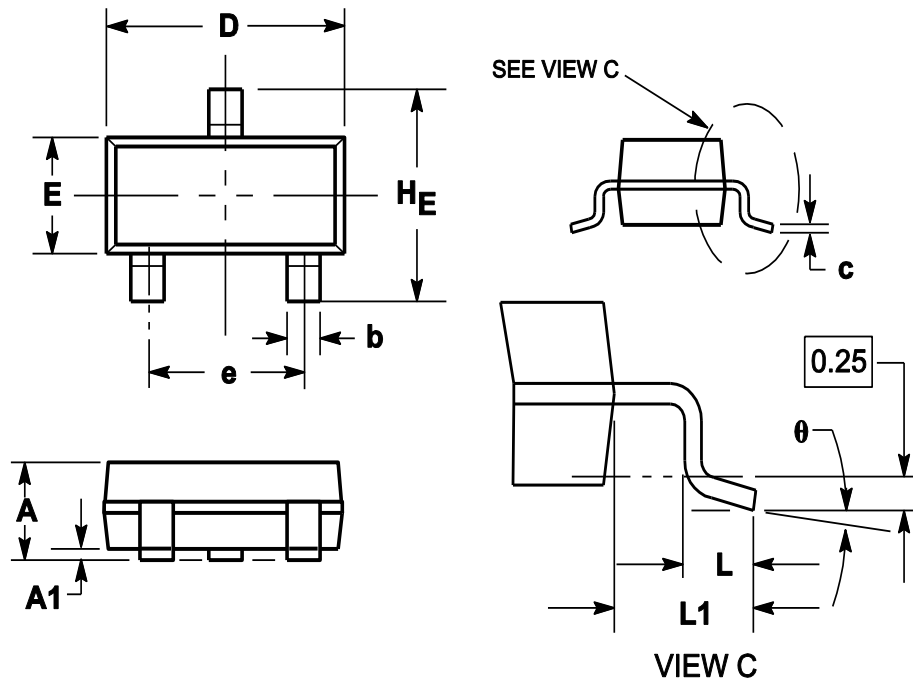
Typical Characteristics Curves



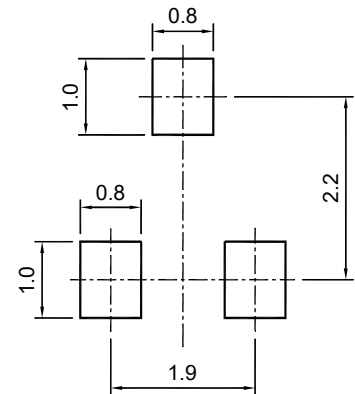


Package Outline

SOT-23



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.000
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
θ	0°		8°

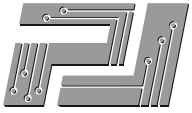


SOT-23

Recommended soldering pad

Ordering Information

Device	Package	Shipping
PJ6206A Series	SOT-23	3000/Reel&Tape(7inch)

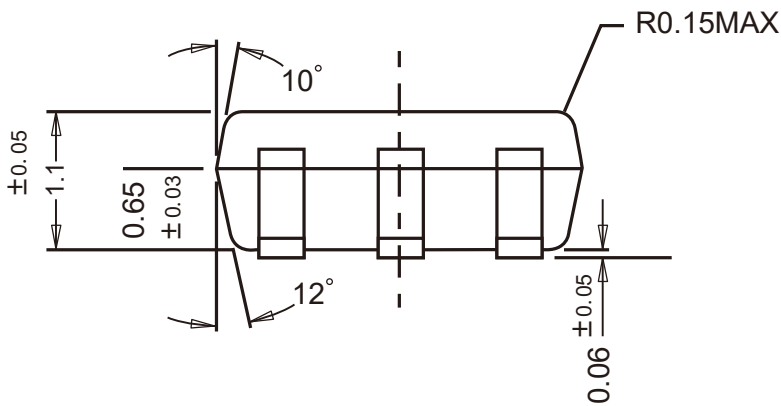
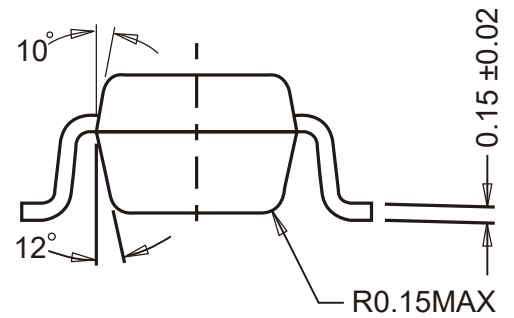
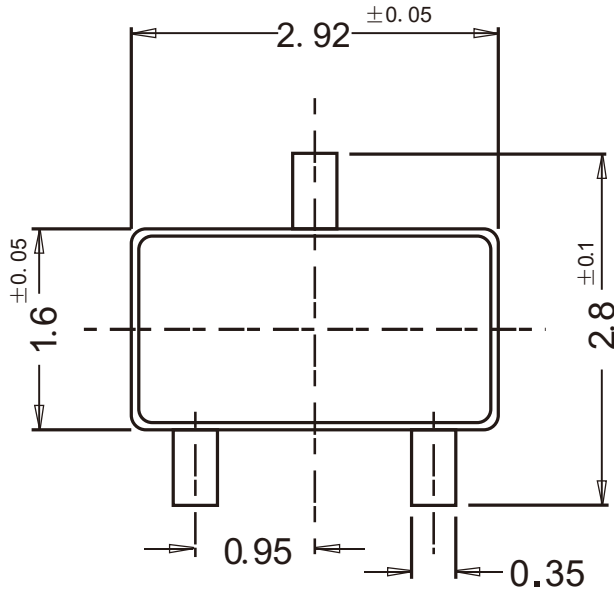


PJ6206A Series Low Dropout Linear Regulator

Package Outline

SOT-23-3

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ6206A Series	SOT-23-3	3000/Reel&Tape(7inch)

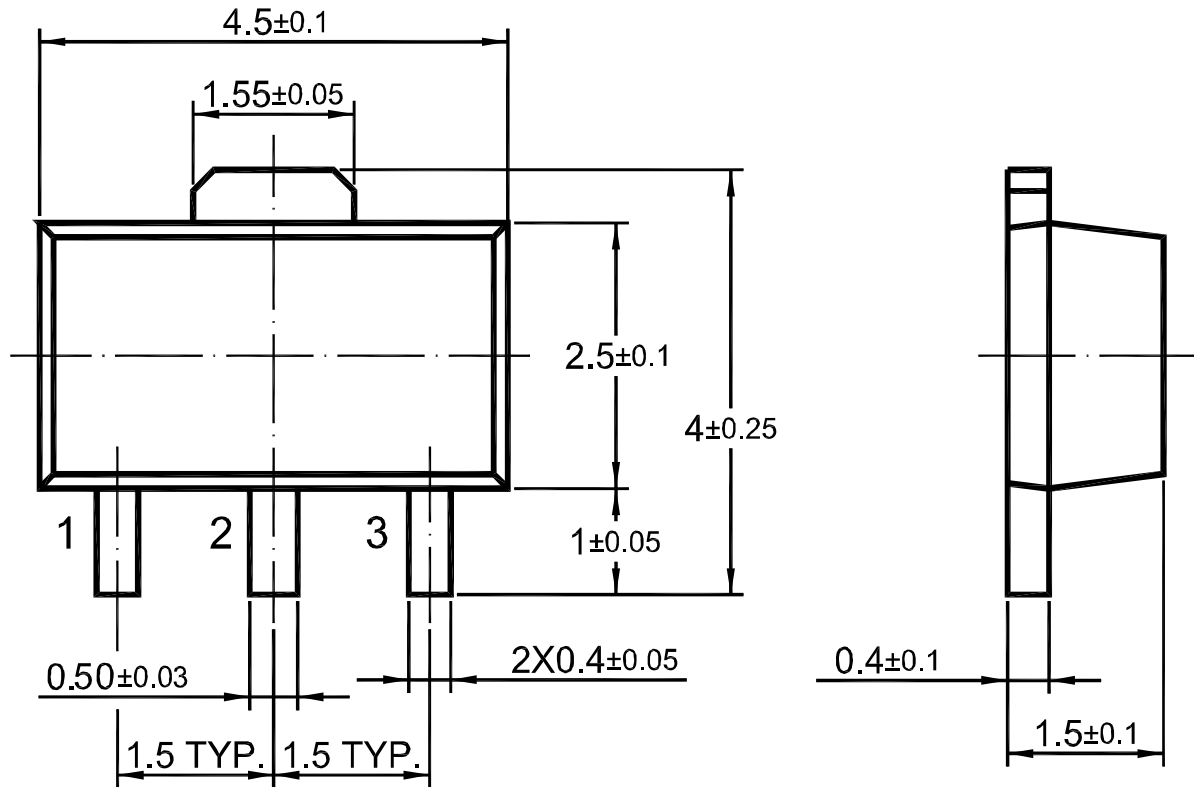


PJ6206A Series Low Dropout Linear Regulator

Package Outline

SOT-89

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ6206A Series	SOT-89	1000PCS/Reel&Tape(7inch)