



PJ6206A Series

Low Dropout Regulators

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.

Features

- Quiescent Current: 8 μ A
- Input Voltage Range: Max.6V
- 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

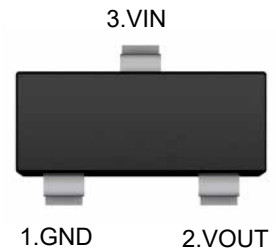
- Battery-Powered Equipment
- Mobile Phones
- Portable game consoles
- Reference voltage sources

Marking Code

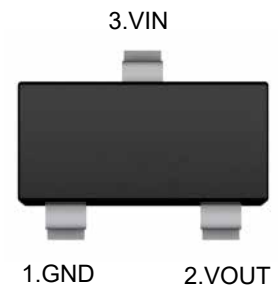


XX:Output Voltage
e.g. 12:1.2V 50:5.0V

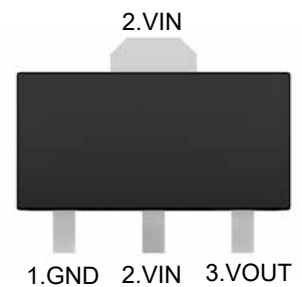
SOT-23



SOT-23-3



SOT-89





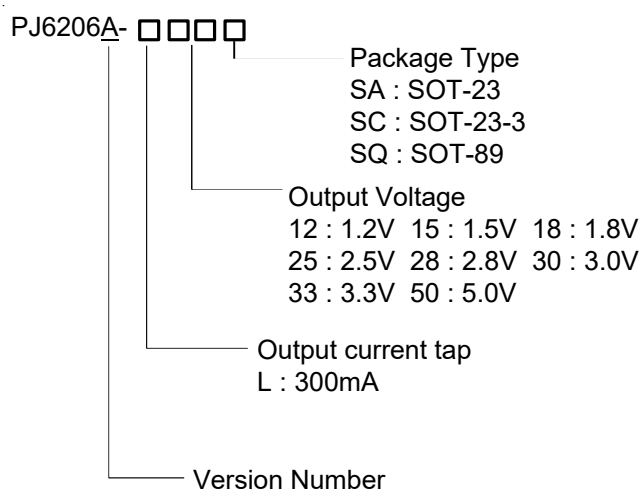
PJ6206A Series

Low Dropout Regulators

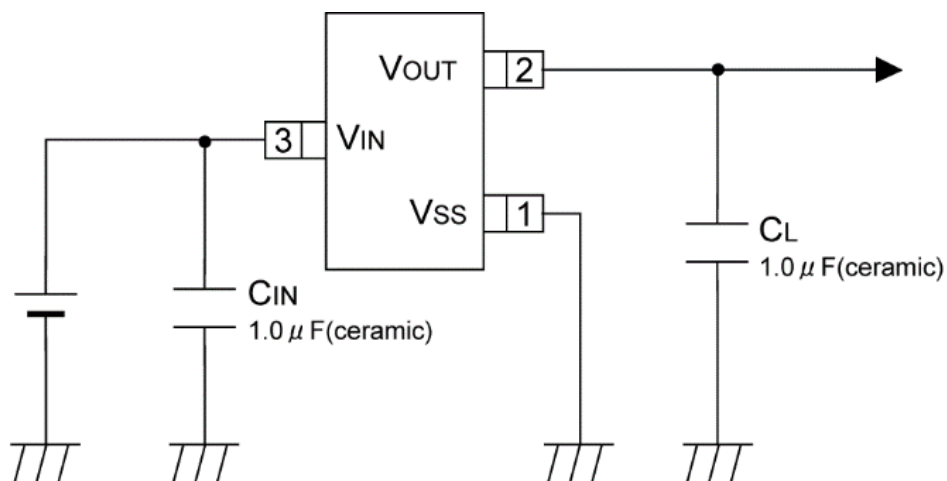
Functional Pin Description

Pin Name	Pin Function
GND	Ground
VOU	Output Voltage
VIN	Power Input Voltage

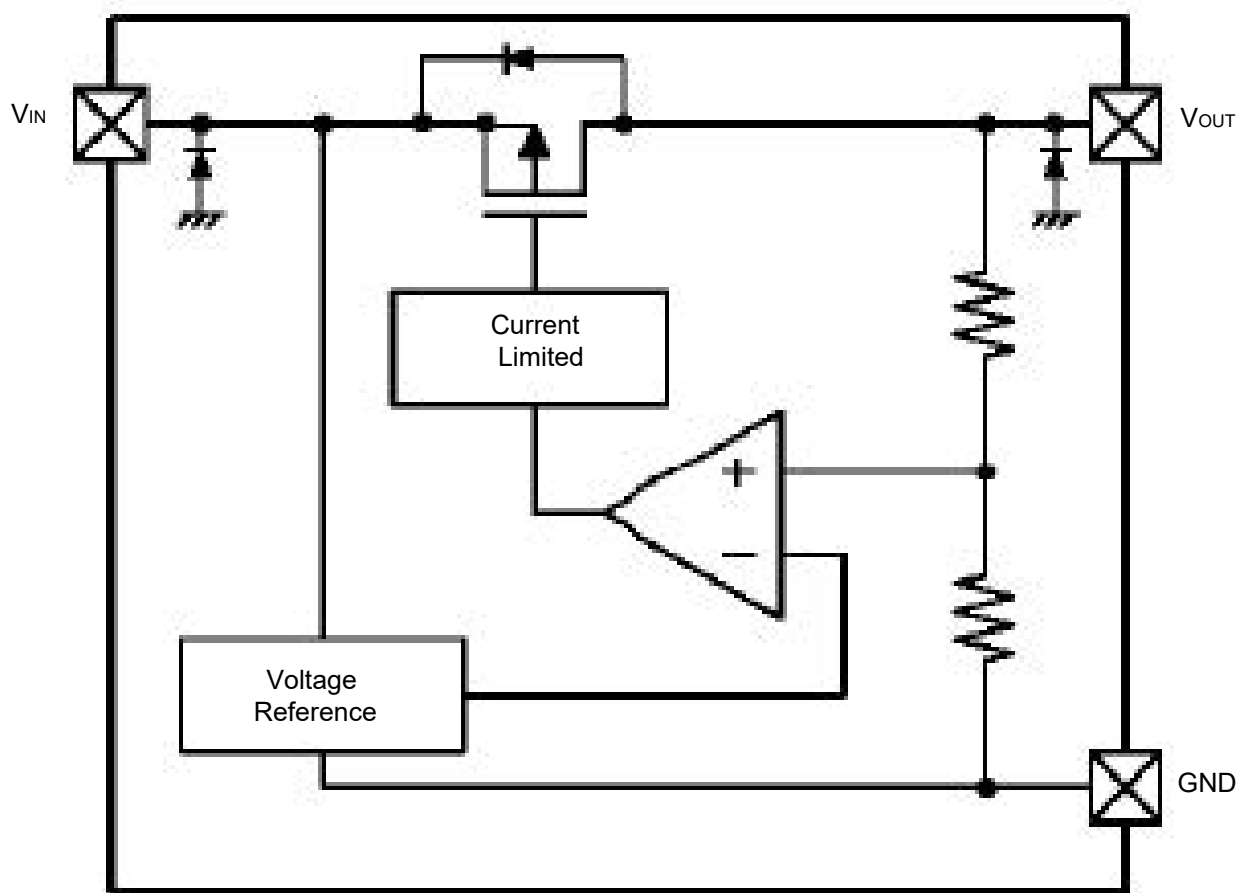
Ordering Information



Typical Application Circuit



Function Block Diagram





Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

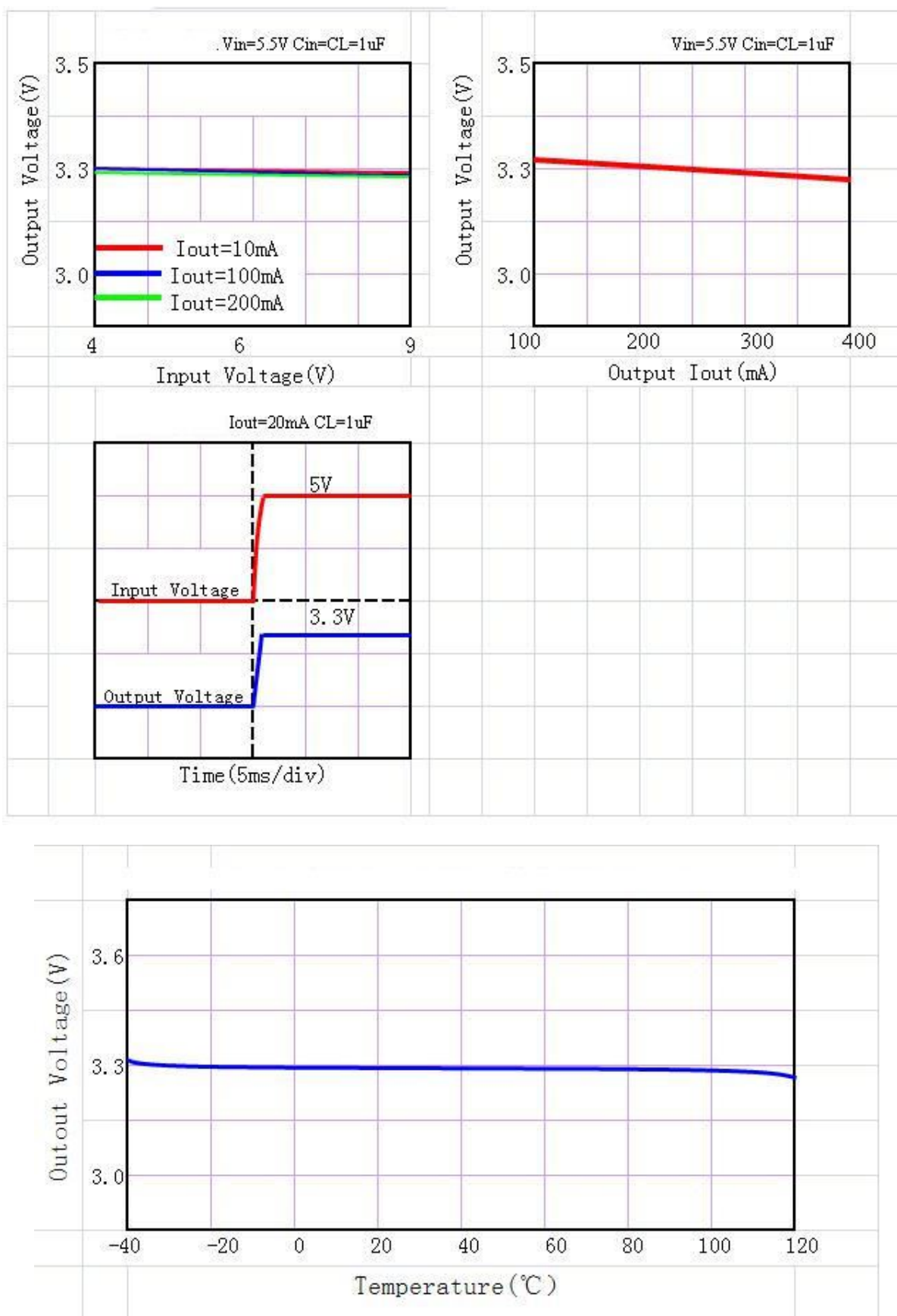
Parameter		Value	Unit
Input Voltage	V_{IN}	-0.3 ~ +6	V
Output Voltage	V_{OUT}	-0.3~ V_{IN} +0.3	V
Output Current	I_{OUT}	300	mA
Power Dissipation	SOT-23	200	mW
	SOT-89	500	mW
	SOT-23-3	250	mW
Operating Temperature Range		-20 ~ +85	°C
Storage temperature range		-55 ~ +125	°C

Electrical Characteristics

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	V_{IN}		--	--	6	V
Output Voltage Accuracy	ΔV_{OUT}	$I_{OUT}=30mA$	-2	--	+2	%
Quiescent Current	I_Q	$I_{OUT}=0mA$	--	8	15	μA
Dropout Voltage ^{Note1}	V_{DROP}	$I_{OUT}=100mA, V_{OUT}\leq 1.5V$	--	--	570	mV
		$I_{OUT}=100mA, 1.8V\leq V_{OUT}\leq 2.5V$	--	--	420	
		$I_{OUT}=100mA, 2.8V\leq V_{OUT}\leq 5V$	--	--	350	
Line Regulation	ΔV_{LINE}	$V_{IN}=V_{OUT}+1$ to 6V, $I_{OUT}=40mA$	--	--	0.2	%/V
Load Regulation	ΔV_{LOAD}	$1mA<I_{OUT}<80mA$	--	12	30	mV
Output Noise Voltage	e_{NO}	BW=10Hz~100KHz	--	160	--	μV_{RMS}
Power Supply Rejection Rate	PSRR	$I_{OUT}=100mA$, $f=1KHz$	--	-70	--	dB
Output Voltage Temperature Coefficient	TC_{VOUT}	$I_{OUT}=30mA$, $T_A=0\sim 70^\circ C$	--	± 100	--	ppm/°C

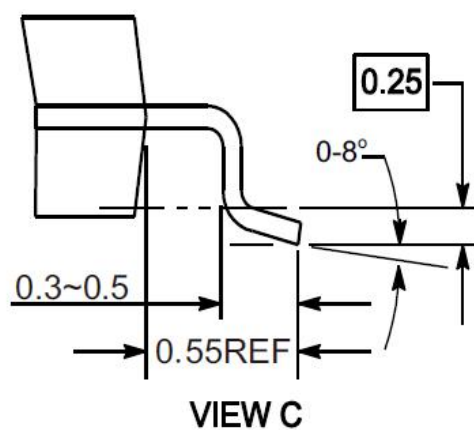
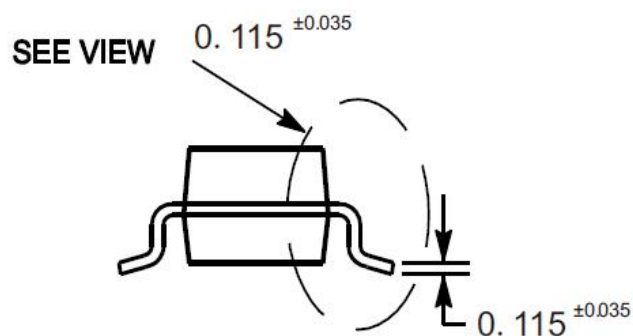
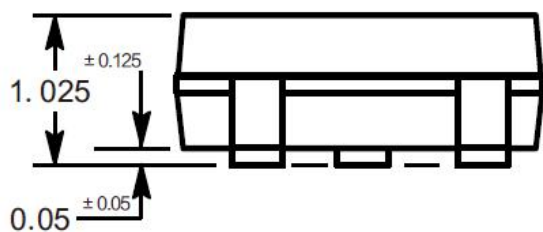
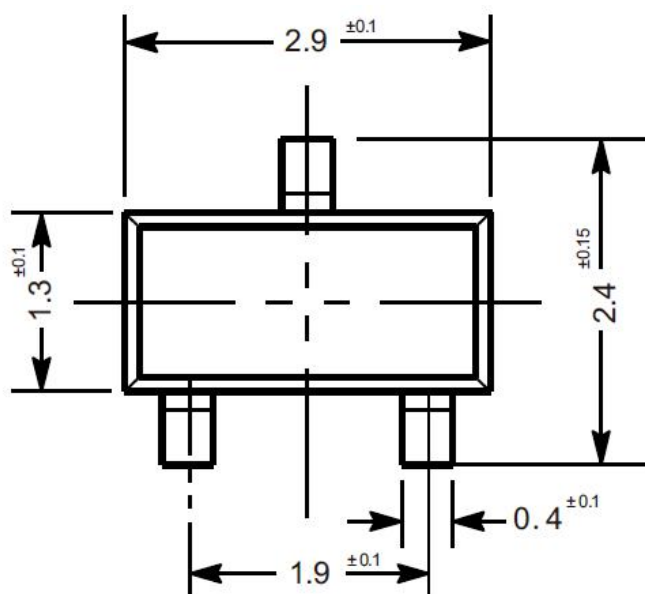
Typical Characteristics Curves



Package Outline

SOT-23

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ6206A Series	SOT-23	3,000PCS/Reel&7inches



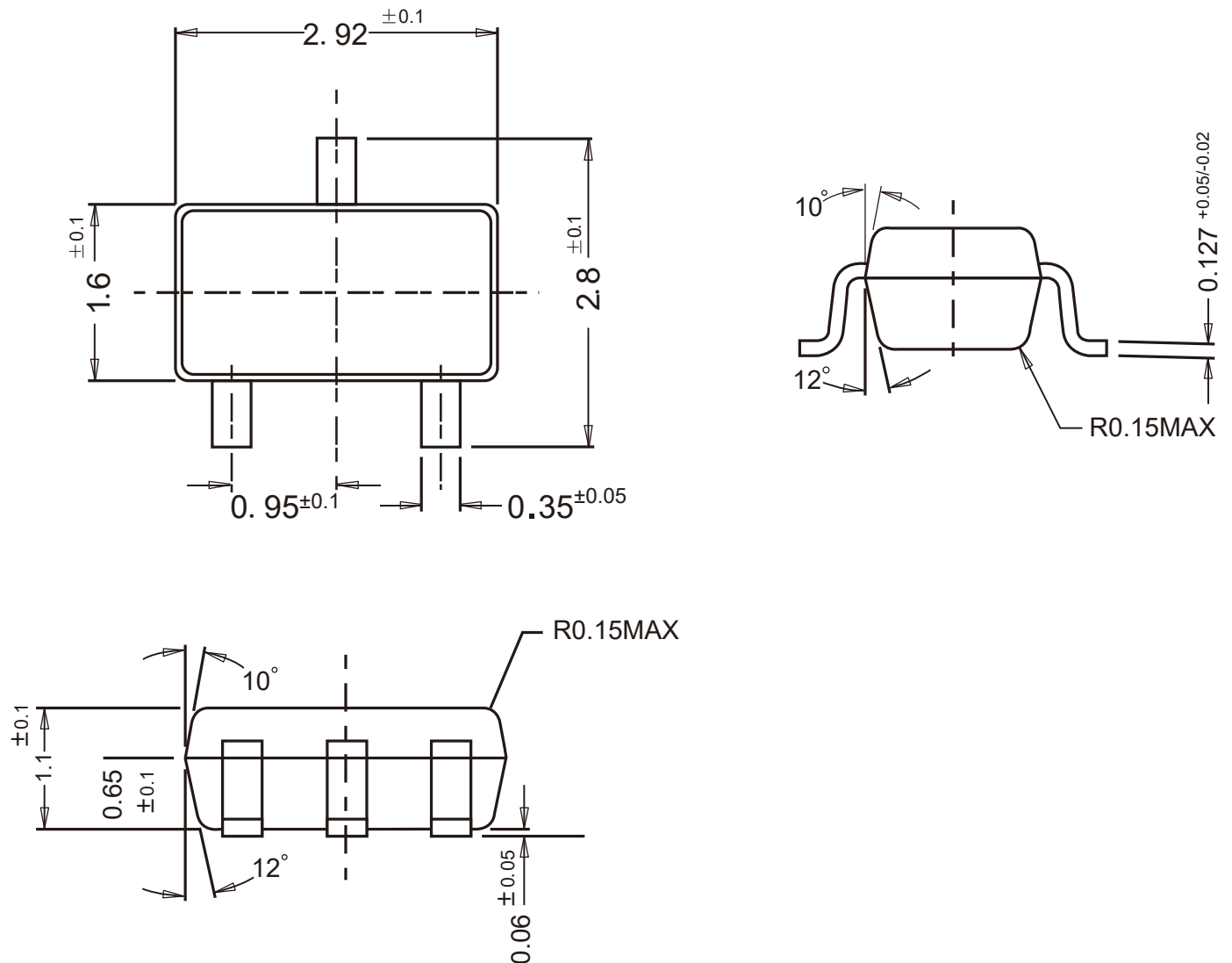
PJ6206A Series

Low Dropout Regulators

Package Outline

SOT-23-3

Dimensions in mm



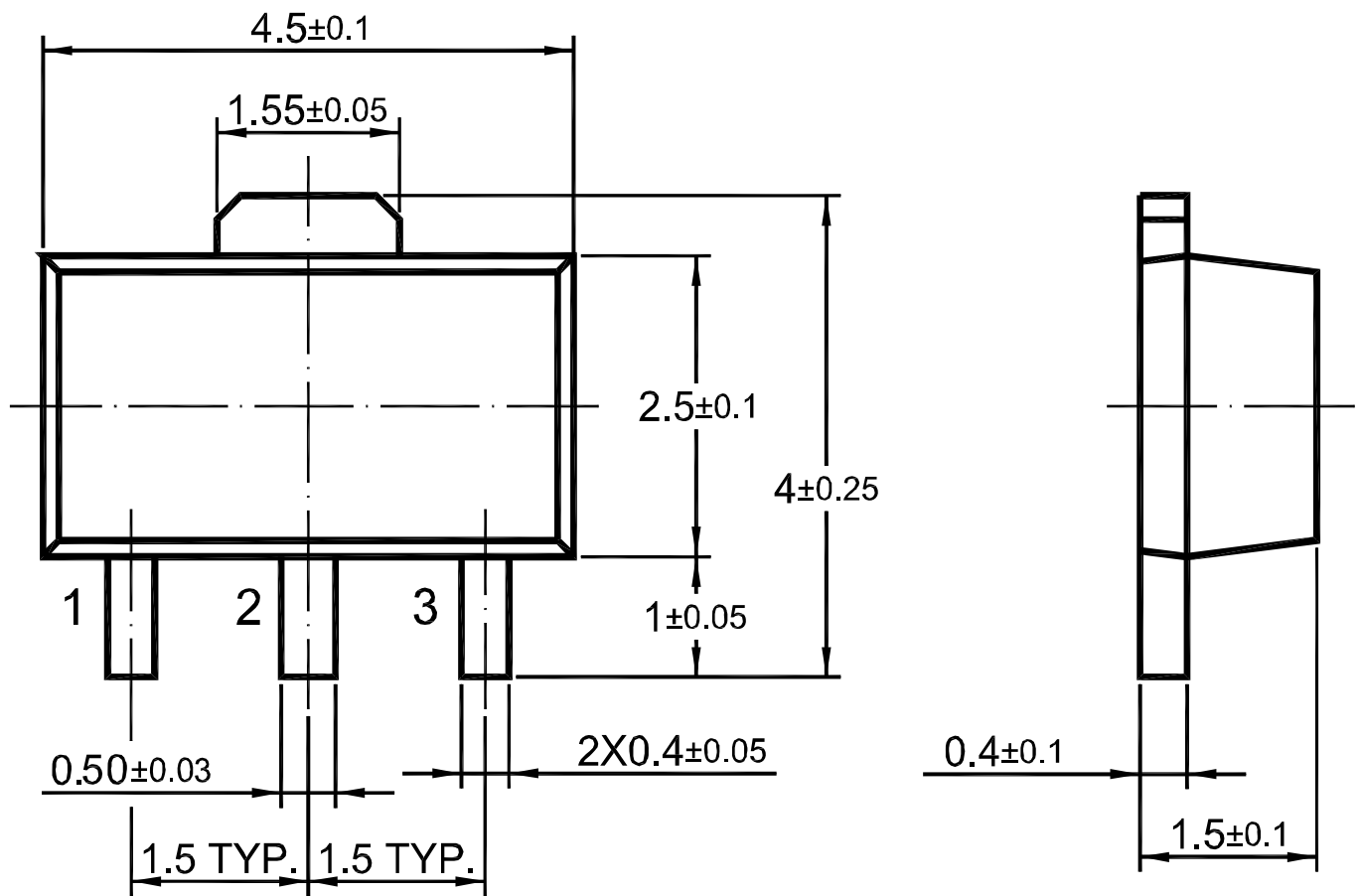
Ordering Information

Device	Package	Shipping
PJ6206A Series	SOT-23-3	3,000PCS/Reel&7inches

Package Outline

SOT-89

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJ6206A Series	SOT-89	3,000PCS/Reel&13inches