

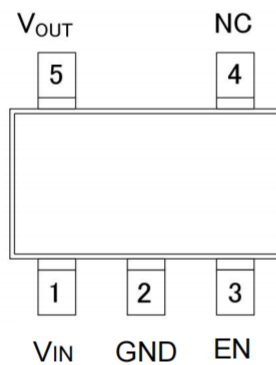
Features

- 3 μ A Current at no Load
- $\pm 2\%$ Output Accuracy
- 250mA Output Current
- Current Limit Protection

Applications

- Industrial Controls
- Home Automation
- Modules (Wireless, Camera, etc.)
- Portable, Battery Powered Equipment

PIN CONFIGURATION



Pin Number	Pin Name	Pin Function
SOT23-5		
1	VIN	Input of Supply Voltage
2	GND	Ground
3	EN	Enable Control Input
4	NC	No Internal Connection
5	VOUT	Output of the Regulator

Ordering Information

TPXC6216B502MR

OUTPUT VOLTAGE

30:3.0V
33:3.3V
50:5.0V

Example: TPXC6216B502MR

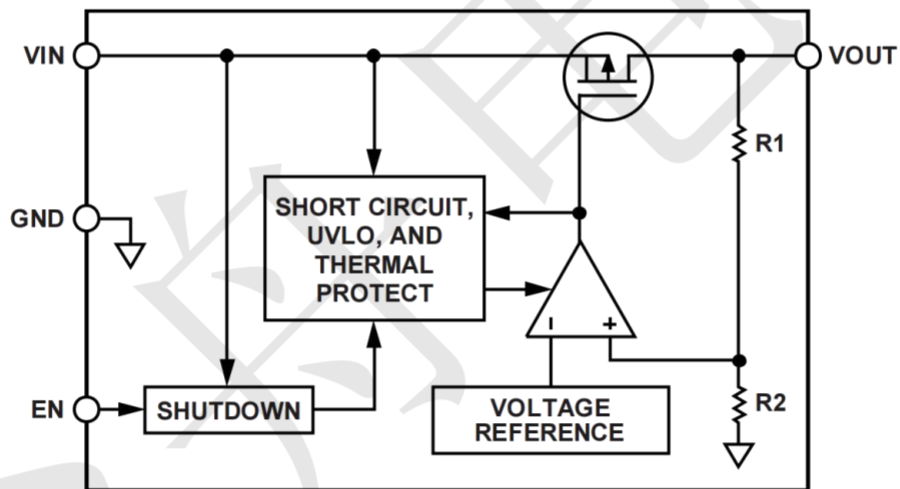
→ 5.0V Version, in SOT23-5 Package
& Tape & Reel Packing Type

Absolute Maximum Ratings

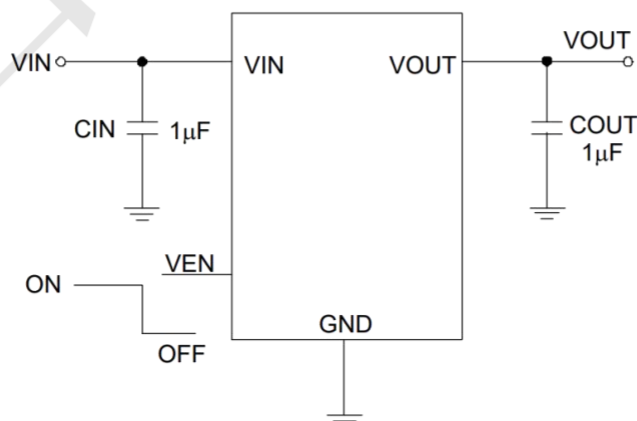
over operating free-air temperature range (unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNIT
VIN	Continuous input voltage range	-0.3	28	V
VOUT	Output voltage range	-0.3	6.0	
EN	EN pin voltage range	-0.3	28	
IOUT	Output pin current	Internally limited		mA
Temperature	Operating Temperature Range ,Topr	-40	+85	°C
	Storage, Tstg	-40	+125	

BLOCK DIAGRAM



Typical Application Circuit



Electrical Characteristics

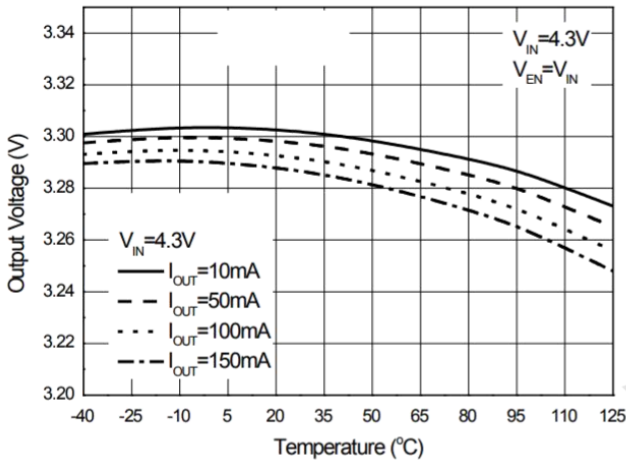
(TA=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST Conditions	MIN	TYP	MAX	UNIT
Supply Voltage	VIN		2.0	--	24	V
Output current	IOUT		250	--	--	mA
DC Output Voltage Accuracy		IOUT = 1mA	-2	--	2	%
Dropout Voltage (VIN-VOUT)	IOUT = 100mA	VOUT = 3.3V	--	400	--	mV
		VOUT = 5.0V	--	320	--	
Ground Current (IOUT = 0mA)	IQ	VOUT = 3.3V	--	1.5	3	uA
Shutdown Ground Current	ISD	VEN = 0V,	--	0.01	1	
VOUT Shutdown Leakage Current	ILEAK	VOUT = 0V	--	0.01	1	
Enable Threshold Voltage	VIH	EN Rising	1.1	--	--	V
	VIL	EN Falling	--	--	0.4	
EN Input Current	IEN	VEN = 5V	--	10	100	nA
Line Regulation	ΔLINE	IOUT = 1mA, 2 ≤ VIN ≤ 5V	--	0.3	--	%
Load Regulation	ΔLOAD	10mA ≤ IOUT ≤ 100mA	--	0.3	--	
Output Current Limit	ILIM	VOUT = 0.9 × VOUT(NOM)	300	--	--	mA
Power Supply Rejection Ratio	PSRR	VOUT = 3.3V, IOUT = 40mA, VIN = 5.5V, f = 1kHz	--	70	--	dB
Thermal Shutdown Temperature	TSD	IOUT = 10mA	--	160	--	°C
Thermal Shutdown Hysteresis	ΔTSD	IOUT = 10mA	--	15	--	°C
Package Thermal Resistance θJA (Note 1)	Thermal Resistance Junction-to-Ambient		--	210	--	°C/W
Total Power Dissipation TC=25°C	PDTOT		--	0.2	--	W

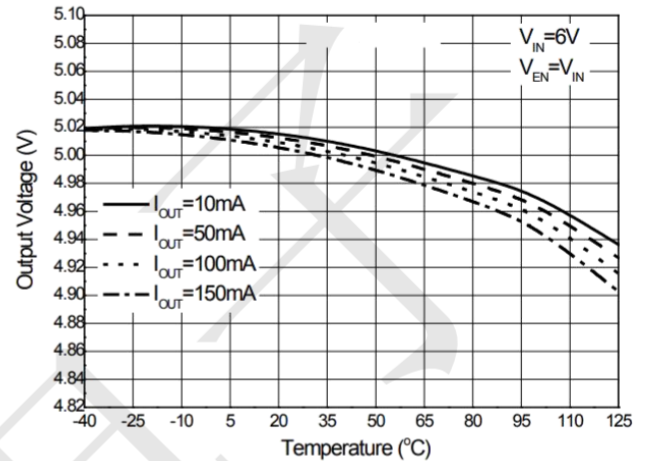
Note: Test condition: For SOT23-5, the device is mounted on FR-4 substrate PC board, with minimum recommended pad layout.

Typical Operating Characteristics

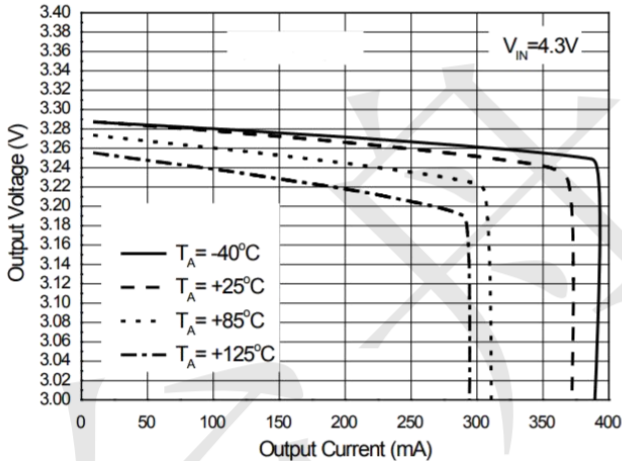
Output Voltage vs. Temperature



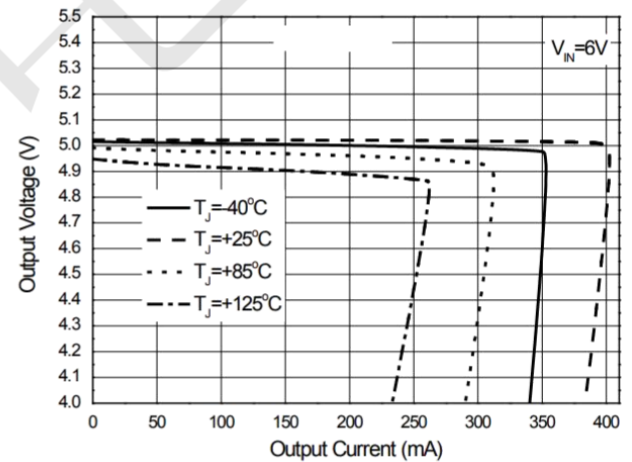
Output Voltage vs. Temperature



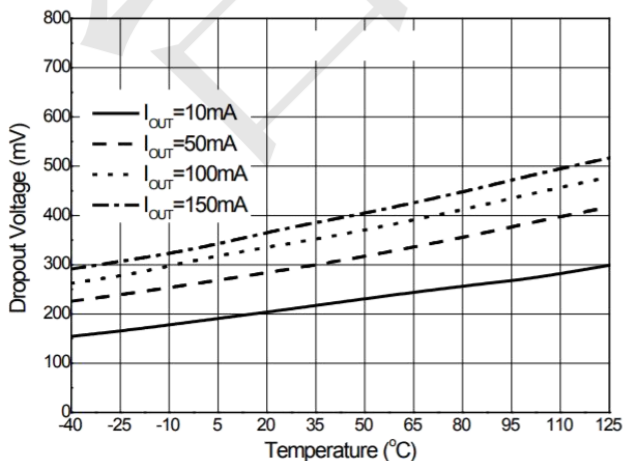
Output Voltage vs. Output Current



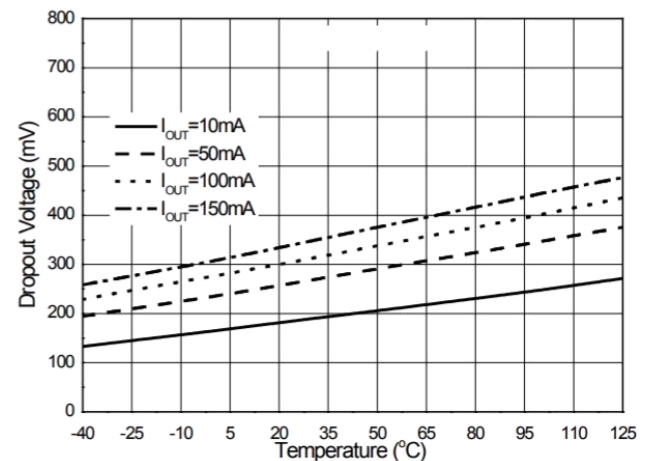
Output Voltage vs. Output Current



Dropout Voltage vs. Temperature

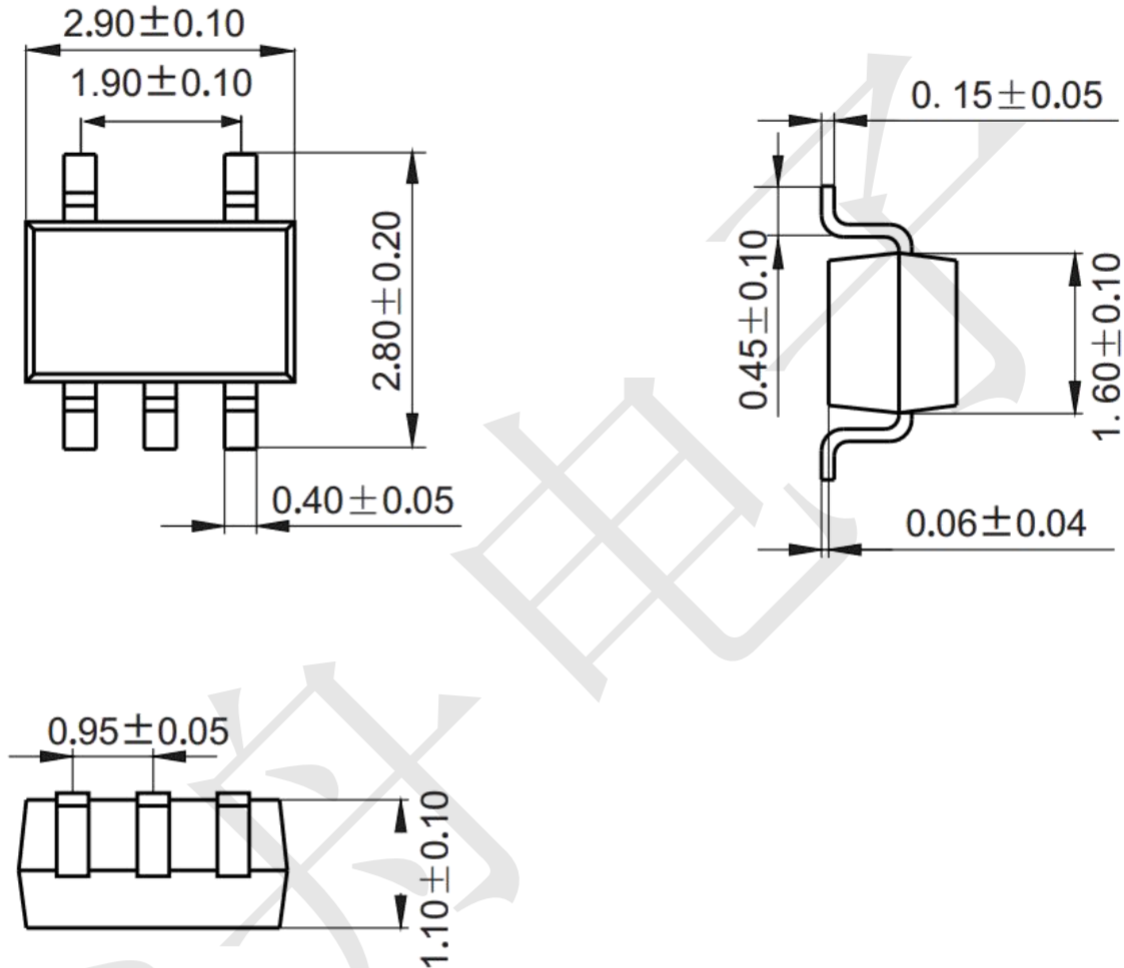


Dropout Voltage vs. Temperature



Package Outline Dimensions (unit: mm)

SOT23-5



Mounting Pad Layout (unit: mm)

