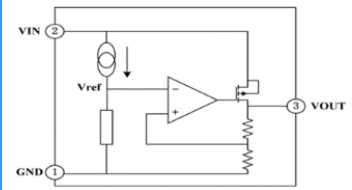


Features

- Low power consumption
- Low voltage drop
- Low temperature coefficient
- High input voltage (up to 26V)
- Ultra low quiescent current: 1.5 μ A(typ.)
- Output voltage accuracy: tolerance $\pm 2\%$
- Output current: 100mA(typ.)
- RoHS compliant with Halogen-free

HF

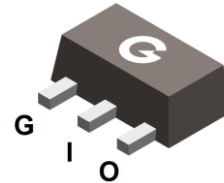


Typical Applications

- Battery-powered equipment
- Audio/Video equipment
- Communication equipment

Mechanical Data

- Case: SOT-89
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-89

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BL7550E	SOT-89	1000 pcs / Tape & Reel	7550

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Supply Voltage	V_{IN}	-0.3 ~ +26	V

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	0.5	W
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Operating Temperature Range	T_{OPR}	-40 ~ +85	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-50 ~ +125	$^\circ\text{C}$

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage	V_{OUT}	$V_{IN} = V_{OUT} + 2.0\text{V}$, $I_{OUT} = 10\text{mA}$	4.9	5.0	5.1	V
Output Current	I_{OUT}	$V_{IN} = V_{OUT} + 2.0\text{V}$	-	100	-	mA
Input Voltage	V_{IN}	-	-	-	26	V
Dropout Voltage	V_{DROP}	$I_{OUT} = 1\text{mA}$, $\Delta V_{OUT} = 2\%$	-	30	65	mV
Line Regulation	$\Delta V_{OUT}/(\Delta V_{IN} \cdot V_{OUT})$	$V_{OUT} + 1\text{V} \leq V_{IN} \leq 24\text{V}$ $I_{OUT} = 1\text{mA}$	-	-	0.2	%/V
Load Regulation	ΔV_{OUT}	$V_{IN} = V_{OUT} + 2.0\text{V}$ $1\text{mA} \leq I_{OUT} \leq 70\text{mA}$	-	25	60	mV
Temperature Coefficient	$\Delta V_{OUT}/(T_A \cdot V_{OUT})$	$V_{IN} = V_{OUT} + 2.0\text{V}$, $I_{OUT} = 10\text{mA}$ $-40^\circ\text{C} \leq T_A \leq 85^\circ\text{C}$	-	100	-	ppm/ $^\circ\text{C}$
Current Consumption	I_{SS}	No Load	-	1.5	3	μA

Typical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

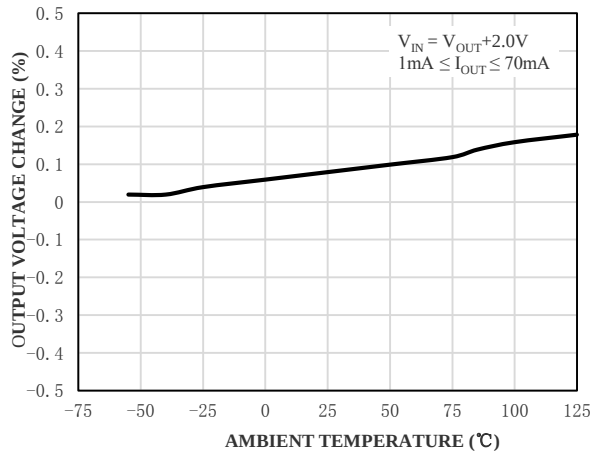


Fig 1 Load Regulation vs. Temperature

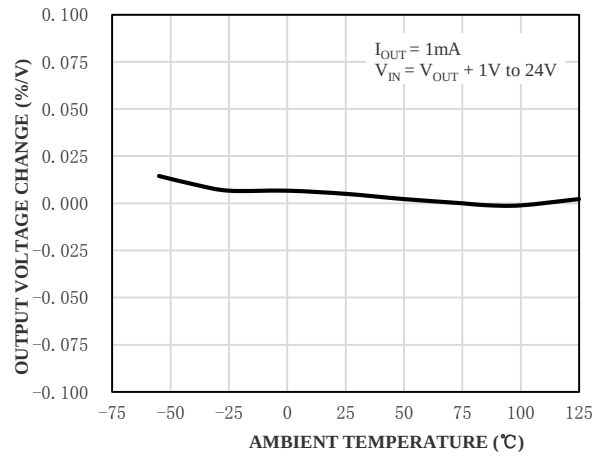


Fig 2 Line Regulation vs. Temperature

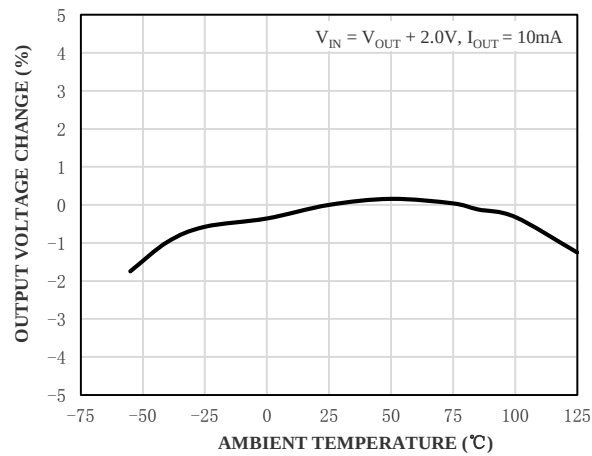


Fig 3 Output Voltage Change vs. Temperature

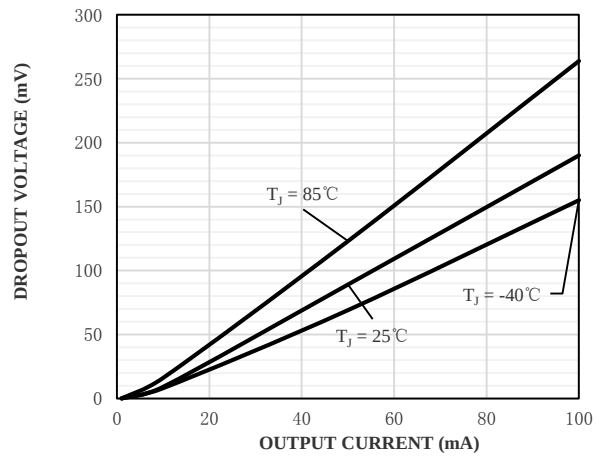


Fig 4 Dropout Voltage vs. Output Current

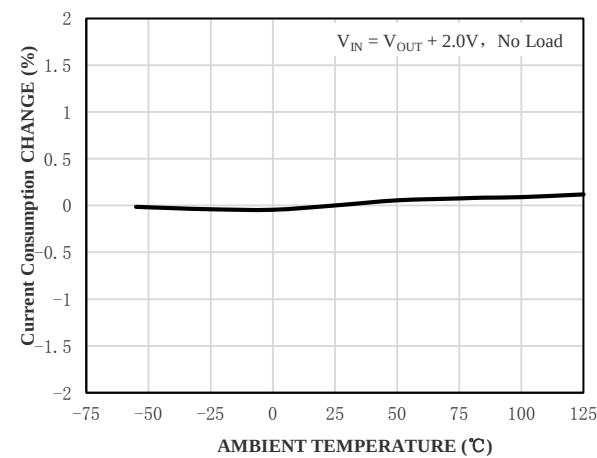


Fig 5 Current Consumption Change vs. Temperature

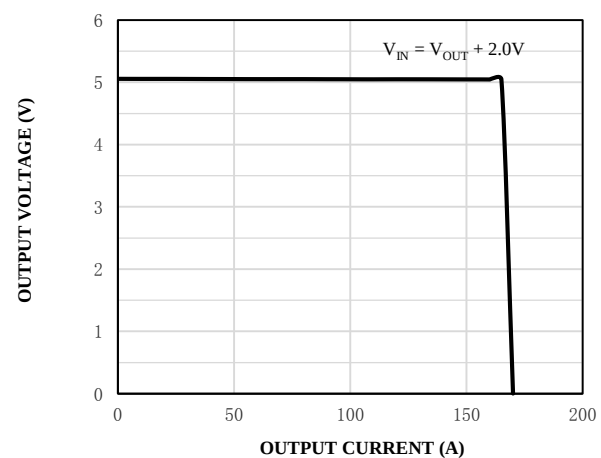
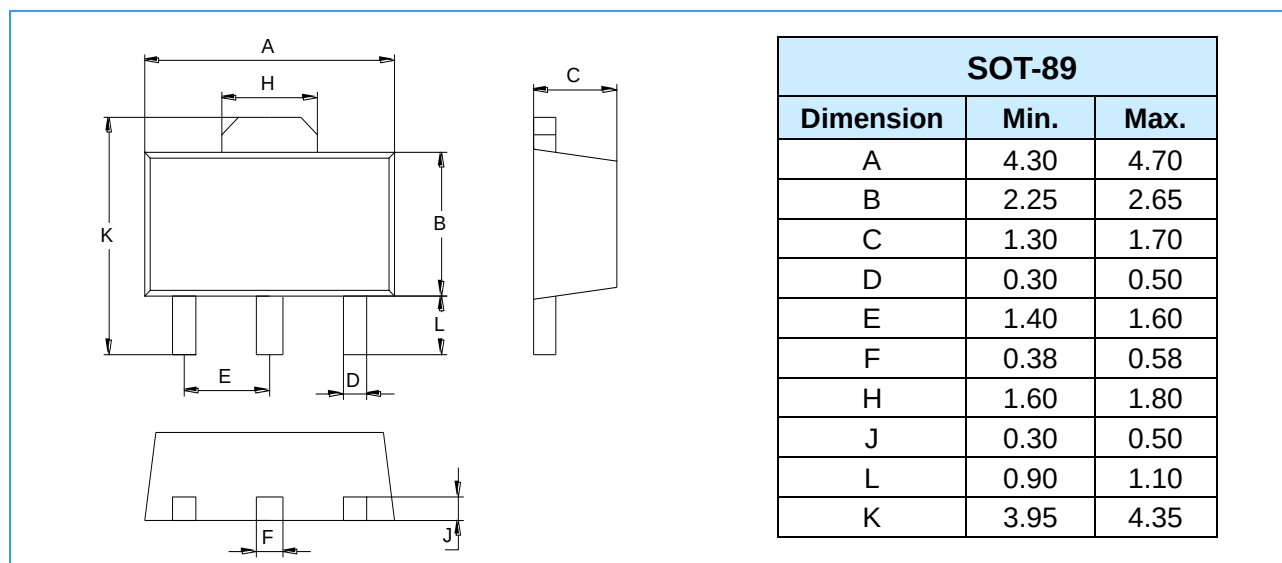


Fig 6 Output Voltage vs. Output Current

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)

