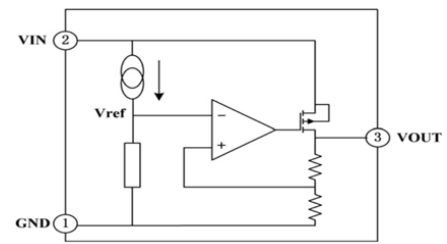


## Features

- Low power consumption
- Low voltage drop
- Low temperature coefficient
- High input voltage (up to 24V)
- Ultra low quiescent current: 1.5 $\mu$ A(typ.)
- Output voltage accuracy: tolerance  $\pm$ 2%
- Output current: 100mA(typ.)

HF

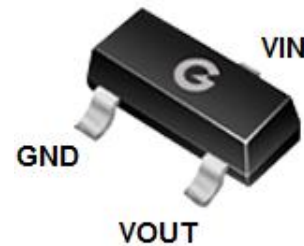


## Typical Applications

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

## Mechanical Data

- Case: SOT-23-3L
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-23-3L

## Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BL7533-3L	SOT-23-3L	3000 pcs / Tape & Reel	7533

## Maximum Ratings (@ T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Supply Voltage	V <sub>IN</sub>	-0.3 ~ +24	V

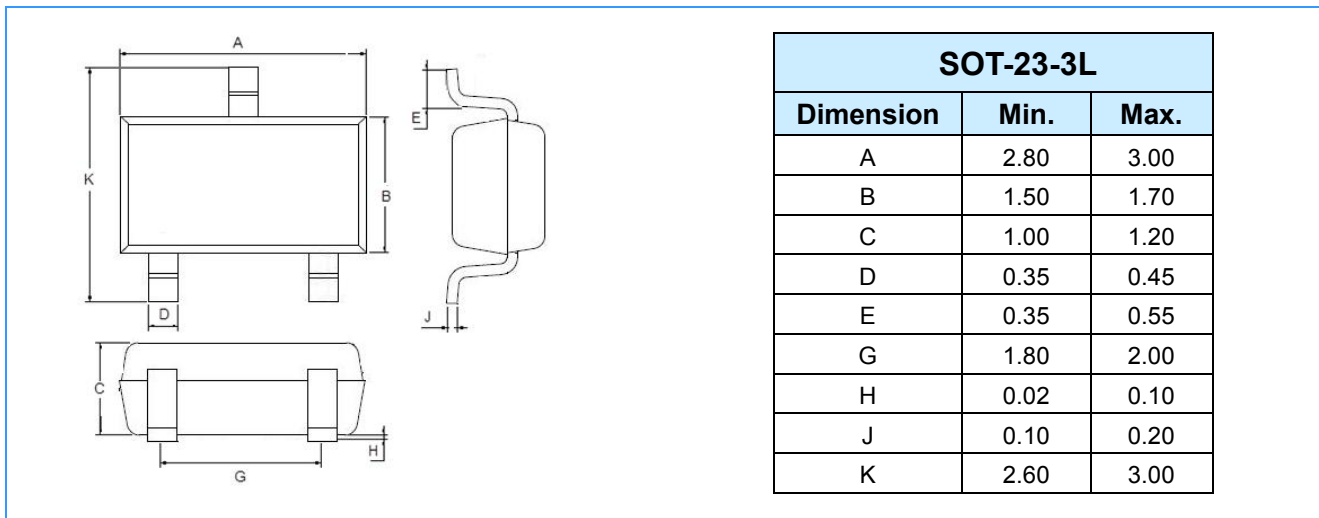
## Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P <sub>D</sub>	0.2	W
Thermal Resistance Junction-to-Air	R <sub>θJA</sub>	500	°C/W
Operating Temperature Range	T <sub>J</sub>	-40 ~ +85	°C
Storage Temperature Range	T <sub>STG</sub>	-50 ~ +125	°C

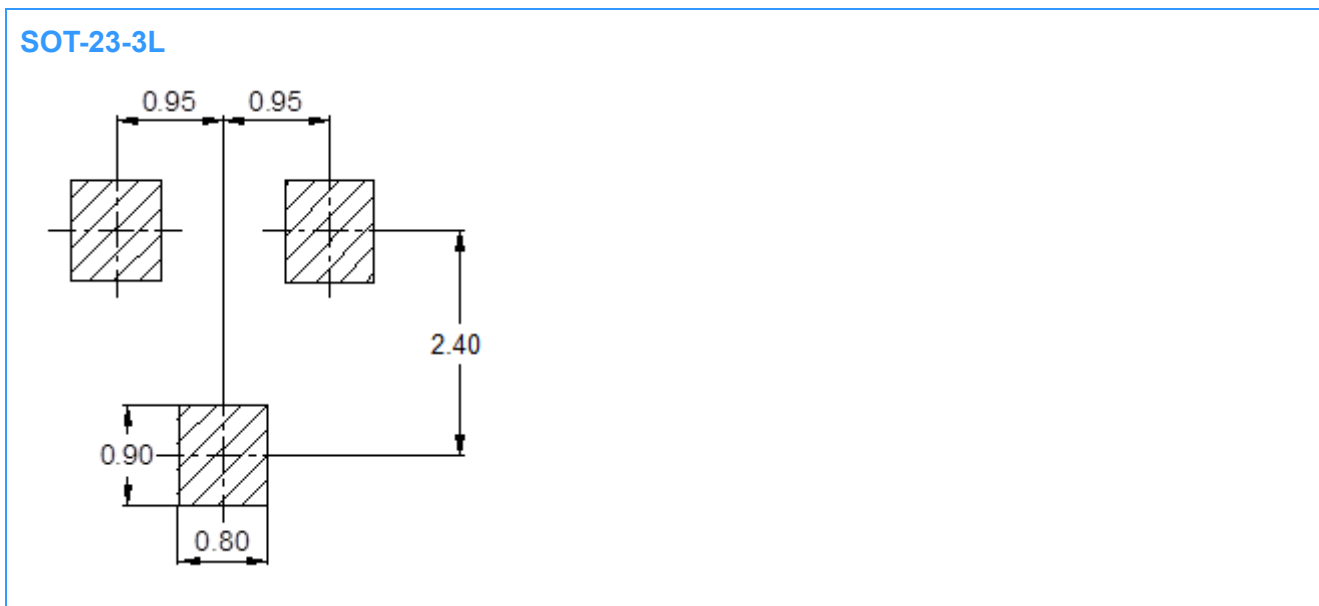
**Electrical Characteristics** (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage	$V_{OUT}$	$V_{IN} = V_{OUT} + 2.0V, I_{OUT} = 10mA$	3.234	3.30	3.366	V
Output Current	$I_{OUT}$	$V_{IN} = V_{OUT} + 2.0V$	70	100	-	mA
Load Regulation	$\Delta V_{OUT}$	$V_{IN} = V_{OUT} + 2.0V$ $1\text{ mA} \leq I_{OUT} \leq 50\text{ mA}$	-	25	60	mV
Voltage Drop	$V_{DIF}$	$I_{OUT} = 1\text{mA}, \Delta V_{OUT} = 2\%$	-	25	55	mV
Current Consumption	$I_{SS}$	No Load	-	1.5	3.0	$\mu\text{A}$
Line Regulation	$\Delta V_{OUT}/(\Delta V_{IN} \cdot V_{OUT})$	$V_{OUT} + 1V \leq V_{IN} \leq 24V$ $I_{OUT} = 1\text{mA}$	-	-	0.2	%/V
Input Voltage	$V_{IN}$	-	-	-	24	V
Temperature Coefficient	$\Delta V_{OUT}/(\Delta T_A \cdot V_{OUT})$	$V_{IN} = V_{OUT} + 2.0V, I_{OUT} = 10\text{mA}$ $-40^\circ\text{C} \leq T_A \leq 85^\circ\text{C}$	-	100	-	ppm/ $^\circ\text{C}$

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)



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