

**Descriptions**

- Three Terminal Positive Low Dropout Voltage Regulator

**Features**

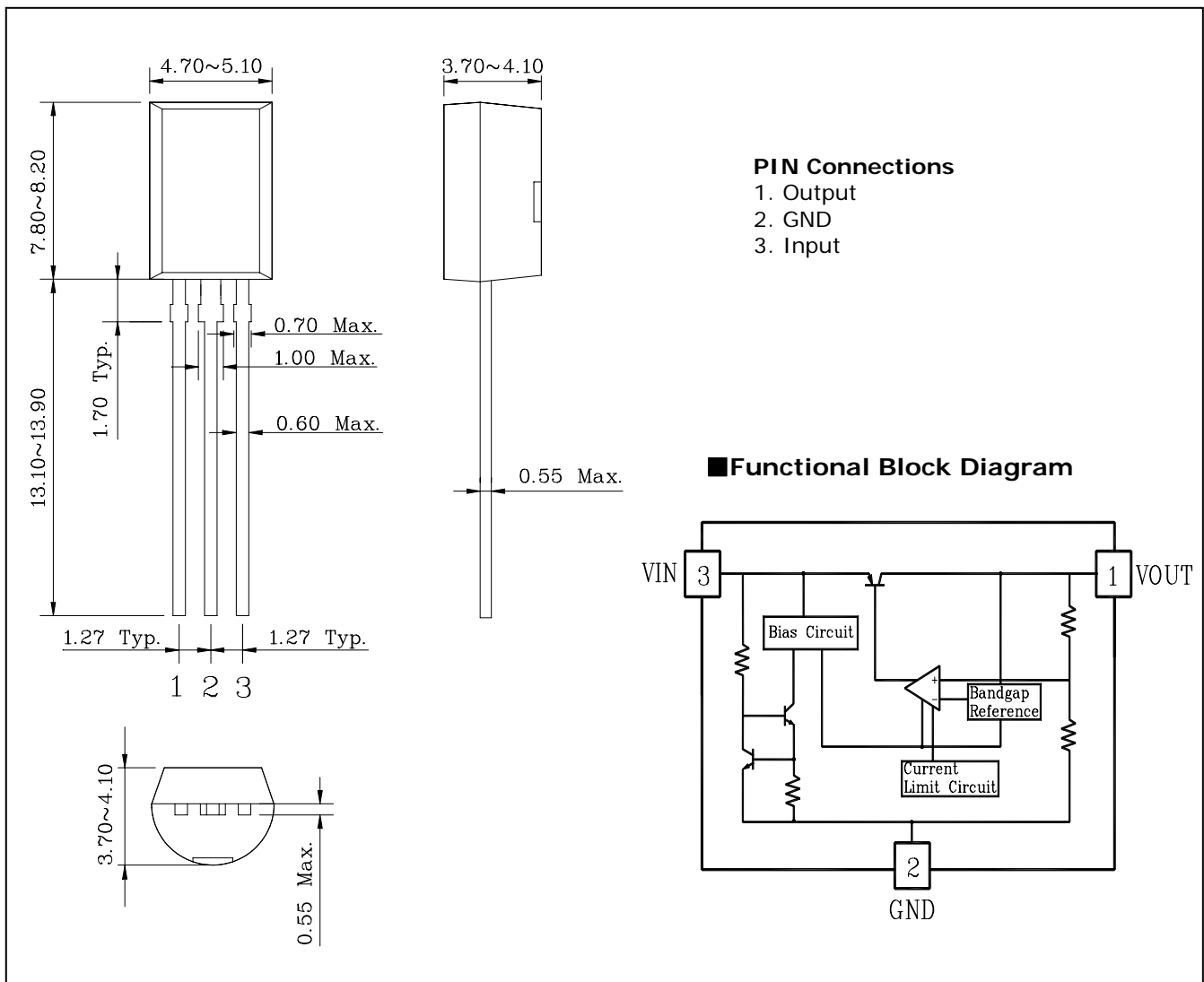
- Low Standby Current Consumption (500  $\mu$ A Typ.)
- Maximum Output Current (180 mA Max.)
- Less I/O voltage Difference (250 mV Max.)

**Ordering Information**

Type NO.	Marking	Package Code
S78DL33L	S78DL33L	TO-92L

**Outline Dimensions**

unit : mm



## Maximum ratings

Ta=25°C

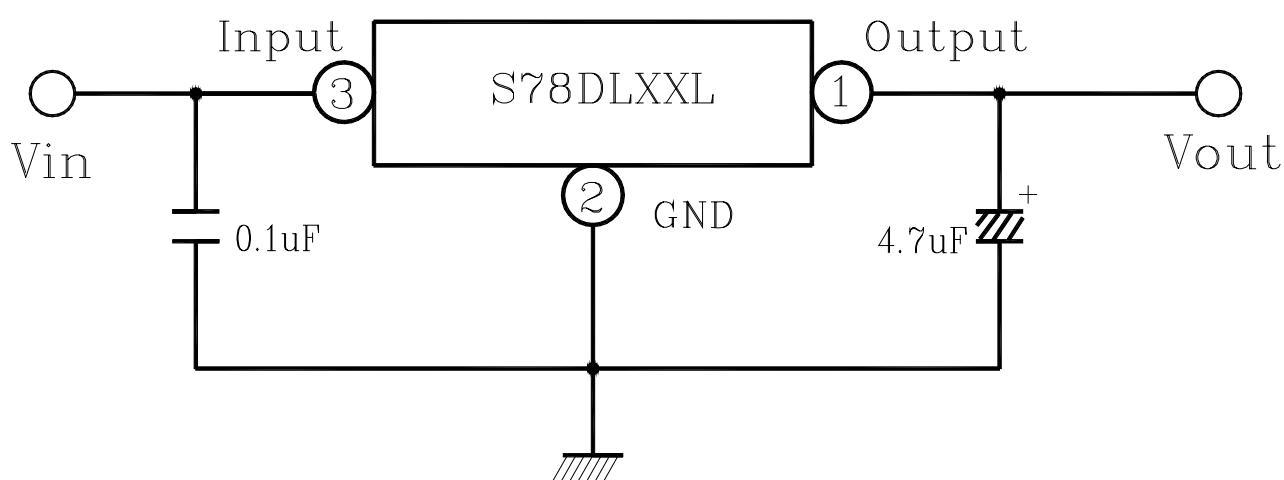
Characteristic	Symbol	Ratings	Unit
Operating Input voltage	V <sub>IN</sub>	16	V
Power Dissipation	P <sub>D</sub>	1	W
Operating Temperature Range	T <sub>OPR</sub>	-40 ~ +85	°C
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C
Lead Temperature Time	T <sub>sol</sub>	260 (10 Sec)	°C

## Electrical Characteristics

(※ V<sub>IN</sub>=4.3V, I<sub>OUT</sub>=100uA, T<sub>j</sub>=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output voltage	V <sub>OUT</sub>	V <sub>IN</sub> =4.3V, I <sub>OUT</sub> =100uA	3.168	3.3	3.432	V
Voltage Regulation	Δ V <sub>OUT</sub> (1)	V <sub>IN</sub> =4.3V ~ 10V, I <sub>OUT</sub> =100uA	-	2	15	mV
Load Regulation	Δ V <sub>OUT</sub> (2)	V <sub>IN</sub> =4.3V, I <sub>OUT</sub> =1 ~ 100mA	-	7	28	mV
Dropout Voltage	V <sub>DROP</sub>	I <sub>OUT</sub> =50mA	-	110	230	mV
		I <sub>OUT</sub> =100mA	-	150	300	
Ripple Rejection Ratio	RR	f=100Hz, I <sub>OUT</sub> =100uA	-	75	-	dB
Ground pin Current	I <sub>GND</sub>	V <sub>IN</sub> =4.3V, I <sub>OUT</sub> =100uA		200	400	uA
		V <sub>IN</sub> =4.3V, I <sub>OUT</sub> =50mA		0.9	1.8	mA
		V <sub>IN</sub> =4.3V, I <sub>OUT</sub> =100mA		2.1	4	mA

## Test circuit



Electrical Characteristic Curves

Fig. 1.  $V_{in} - V_{out}$

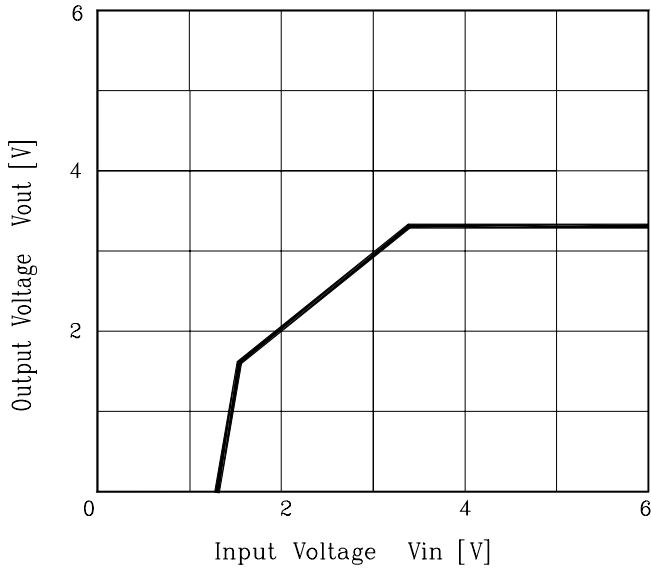


Fig. 2.  $|V_{out} - V_{in}| - I_{OUT}$

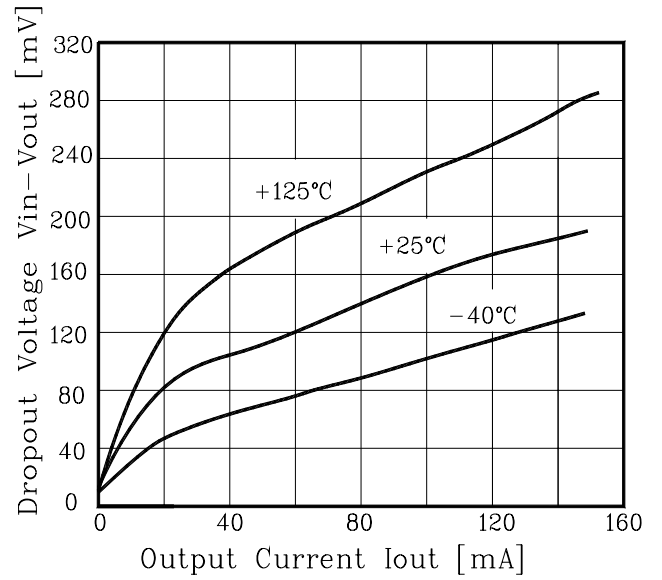


Fig. 3.  $P_d - T_a$

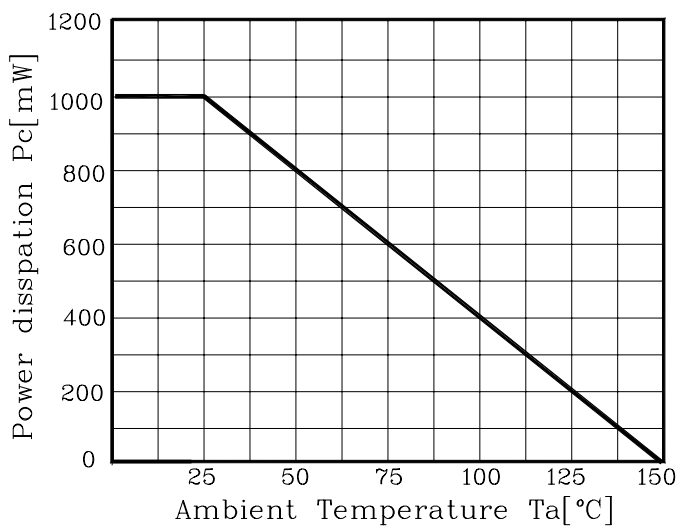
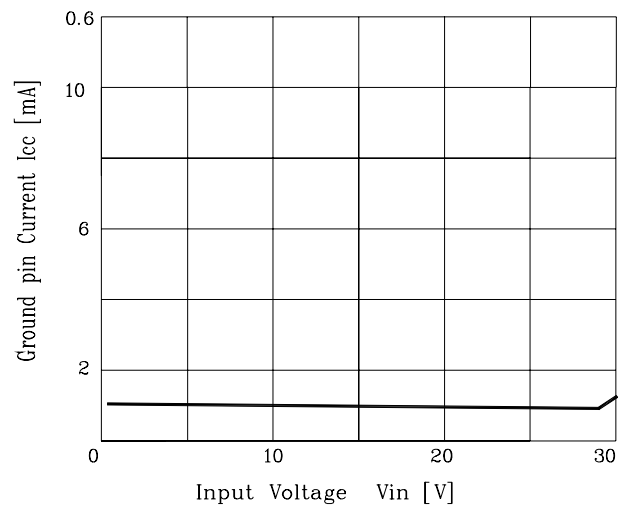


Fig. 4. Input voltage – Ground pin Current



**The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).**

**Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..**

**Specifications mentioned in this publication are subject to change without notice.**