

**Descriptions**

- Three Terminal Positive Low Dropout Voltage Regulator

**Features**

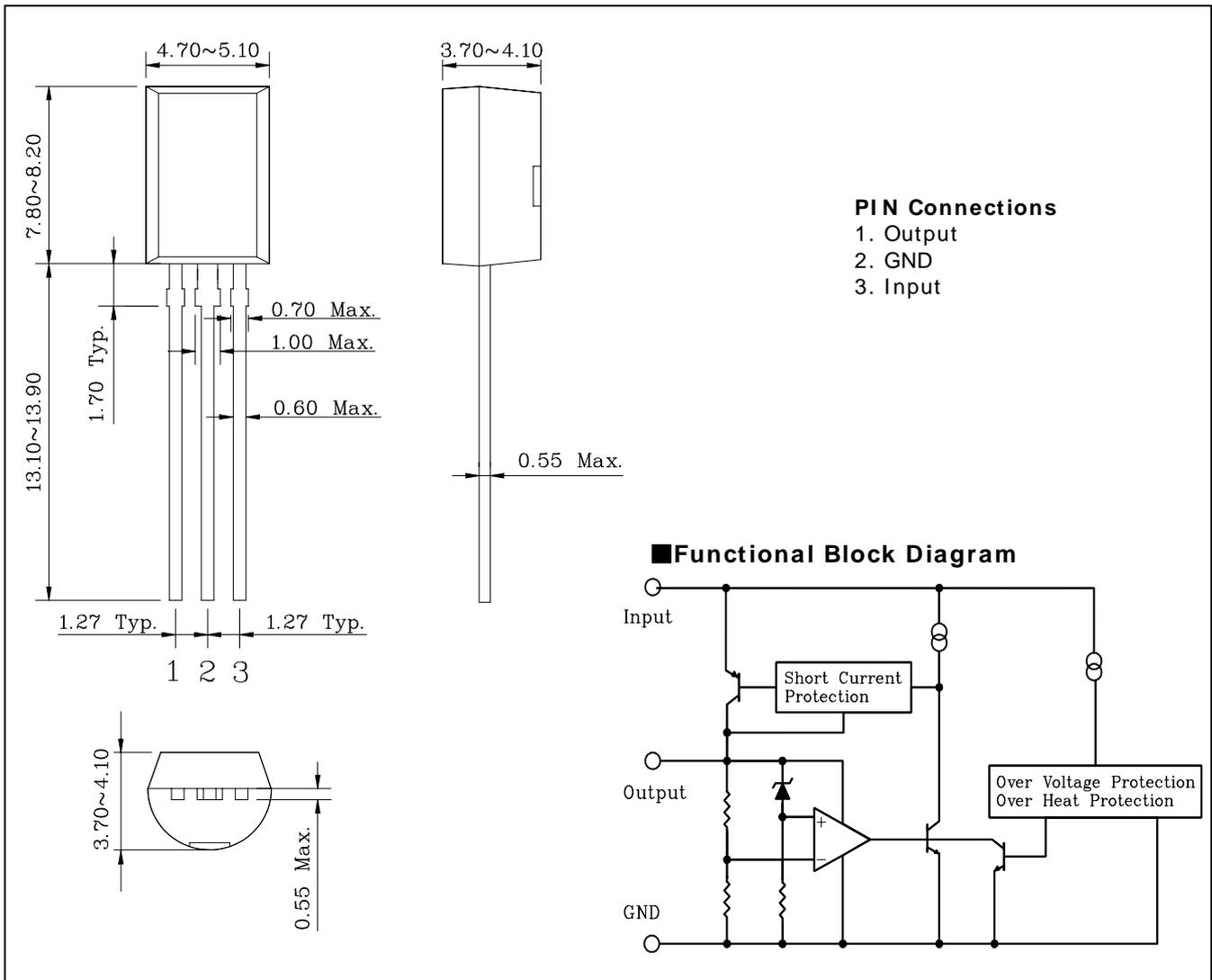
- Low Standby Current Consumption (500  $\mu$ A Typ.)
- Maximum Output Current (150 mA Max.)
- Less I/O voltage Difference (0.7V Max.)

**Ordering Information**

Type NO.	Marking	Package Code
S78DL05L	S78DL05L	TO-92L

**Outline Dimensions**

unit : mm



## Maximum ratings

T<sub>a</sub>=25°C

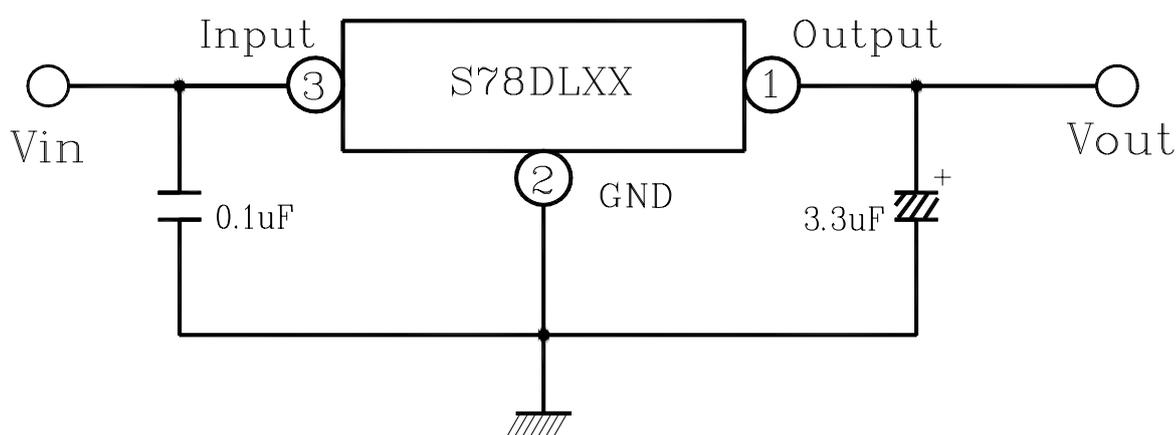
Characteristic	Symbol	Ratings	Unit
Operating Input voltage	V <sub>IN</sub>	20	V
Power Dissipation	P <sub>D</sub>	1	W
Operating Temperature Range	T <sub>OPR</sub>	-40~ +85	°C
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~ 150	°C
Lead Temperature Time	T <sub>sol</sub>	260 (10 Sec)	°C

## Electrical Characteristics

(※ V<sub>IN</sub>=10V, I<sub>OUT</sub>=10 mA, T<sub>j</sub>=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output voltage	V <sub>OUT</sub>	V <sub>IN</sub> =5.35V~ 20V, T <sub>a</sub> = -40~ 85°C	4.8	5	5.2	V
Voltage Regulation	Δ V <sub>OUT</sub> (1)	V <sub>IN</sub> =6V~ 16V	-	10	30	mV
Load Regulation	Δ V <sub>OUT</sub> (2)	I <sub>OUT</sub> = 10~ 100mA	-	12	50	mV
Quiescent Current	I <sub>CC</sub>	I <sub>OUT</sub> ≤ 10mA, V <sub>IN</sub> = 6V~ 20V	-	0.5	1	mA
Dropout Voltage	V <sub>DROP</sub>	I <sub>OUT</sub> = 50mA	-	0.3	0.5	V
		I <sub>OUT</sub> = 100mA	-	0.5	0.7	
Maximum Operating Input Voltage	V <sub>IN</sub>		20	29	-	V

## ■ Test circuit



Electrical Characteristic Curves

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

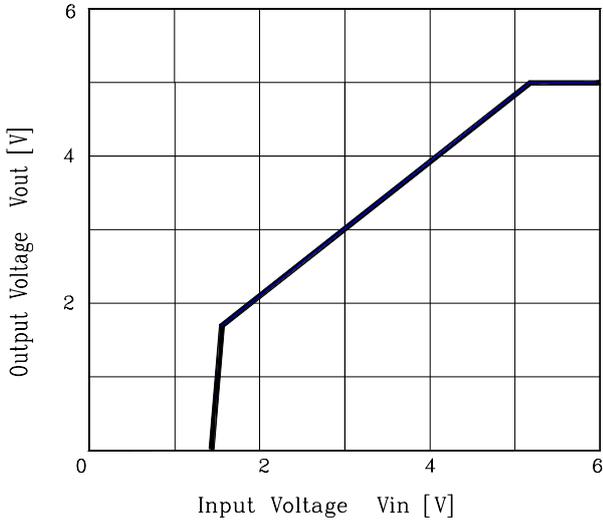


Fig. 2.  $|V_{out} - V_{in}| - I_C$

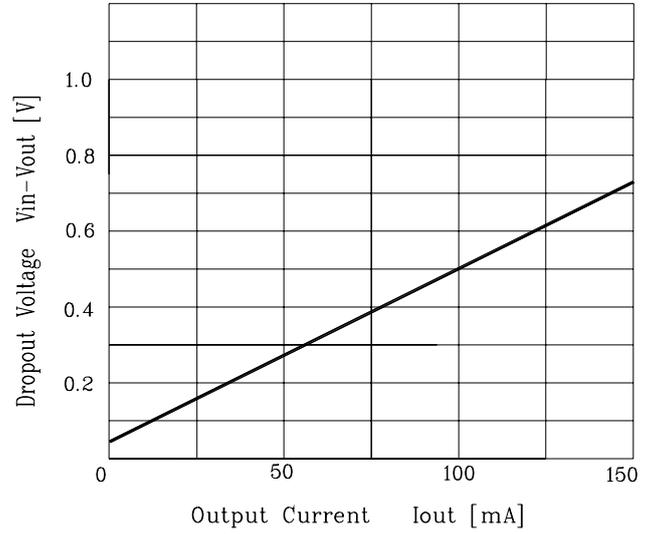


Fig. 3.  $P_d - T_a$

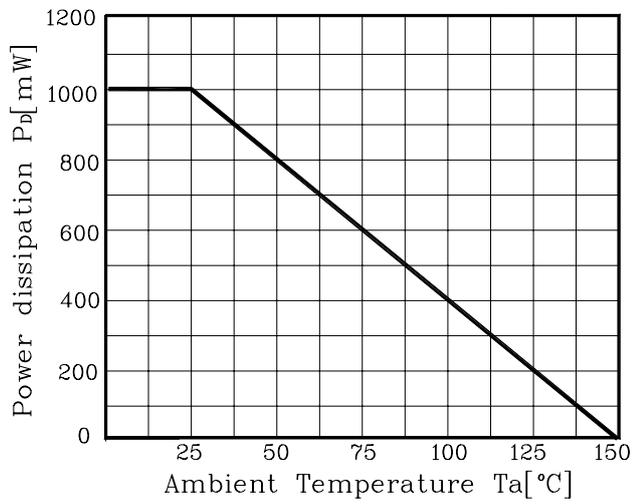
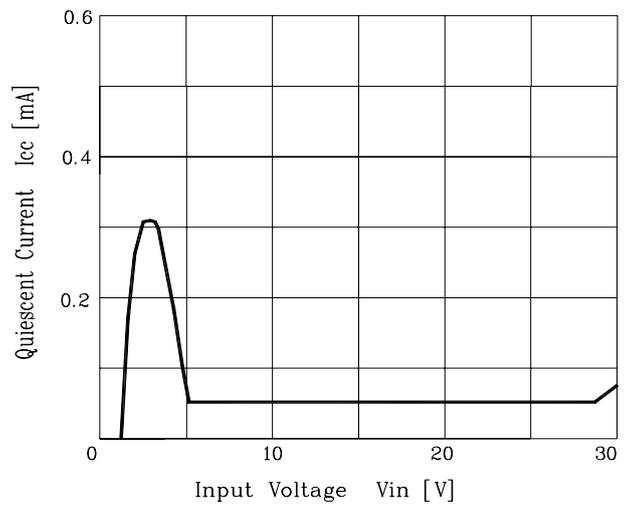


Fig. 4.  $I_{cc} - V_{out}$



**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.**