

SPECIFICATION

1. DESCRIPTION

The DK450 is an accurate 5V voltage stabilizing controller with high performance. It is specially design for AC-DC switch mode power supply as output voltage stabilizing benchmark.

2. APPLICATIONS

- | | |
|-----------------------------------|------------------------------|
| Battery charger | DVD/VCD/VCR power supply |
| Power AC/DC adapters | Air conditioner power supply |
| STB power supply | LED driver applications |
| Electromagnetic oven power supply | TV/Monitor power supply |

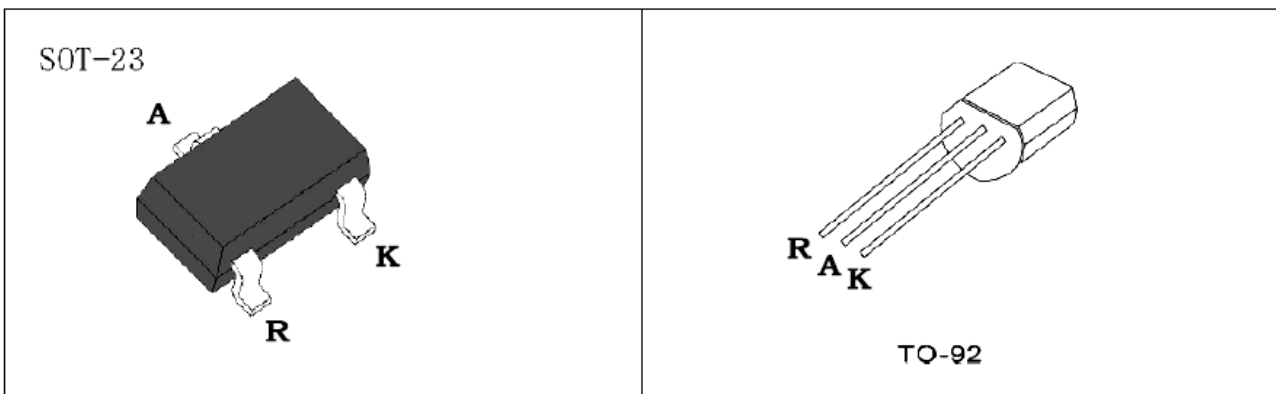
3. MAIN FEATURES

With integrated accurate voltage stabilizer and constant-current output circuit to support 5V AC-DC products, no need for additional components, this IC can directly driver the optocoupler with constant-current, so that can reduce the cost, defective rate and size of the PCB.

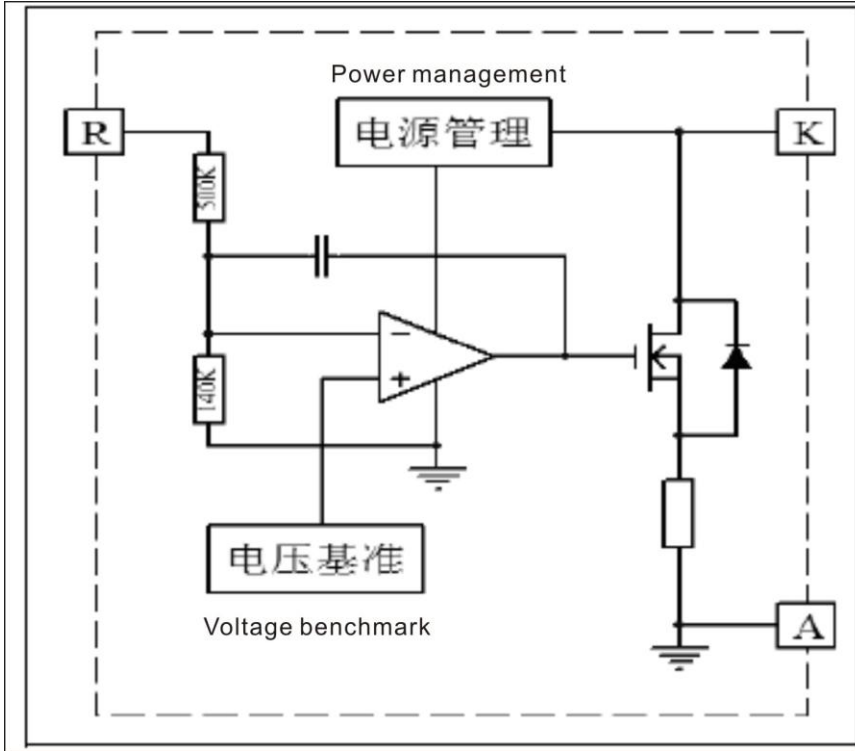
4. VOLTAGE RANGE

L Level	A Level	B Level	H Level
4.9-5.0V	5.0-5.1V	5.1-5.2V	5.2-5.3V

5. CONNECTION DIAGRAM



6. CIRCUIT DIAGRAM



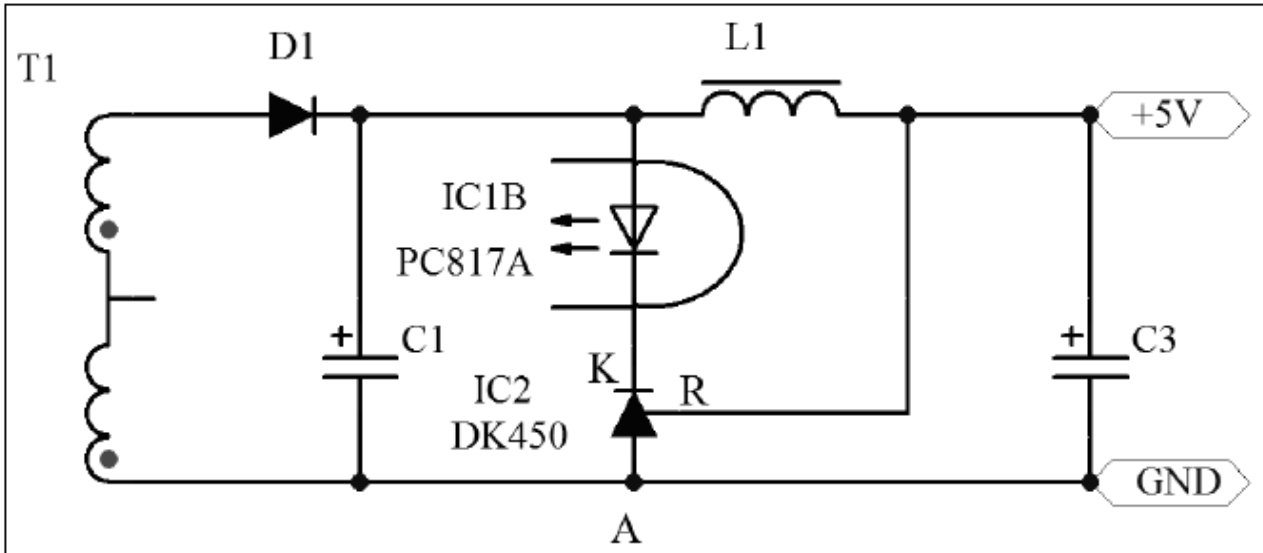
7. ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
Vcc	Supply voltage	-0.3V--8	V
Ivcc	Current of supply voltage	200	uA
Vpin	Pin voltage	-0.3--8	V
Vesd	ESD withstand voltage	2.5	KV
Tc	Case operating temperature	-20--+125	°C
Tstg	Storage temperature	-50--+150	°C
Tsol	Soldering temperature	+280	°C/5S

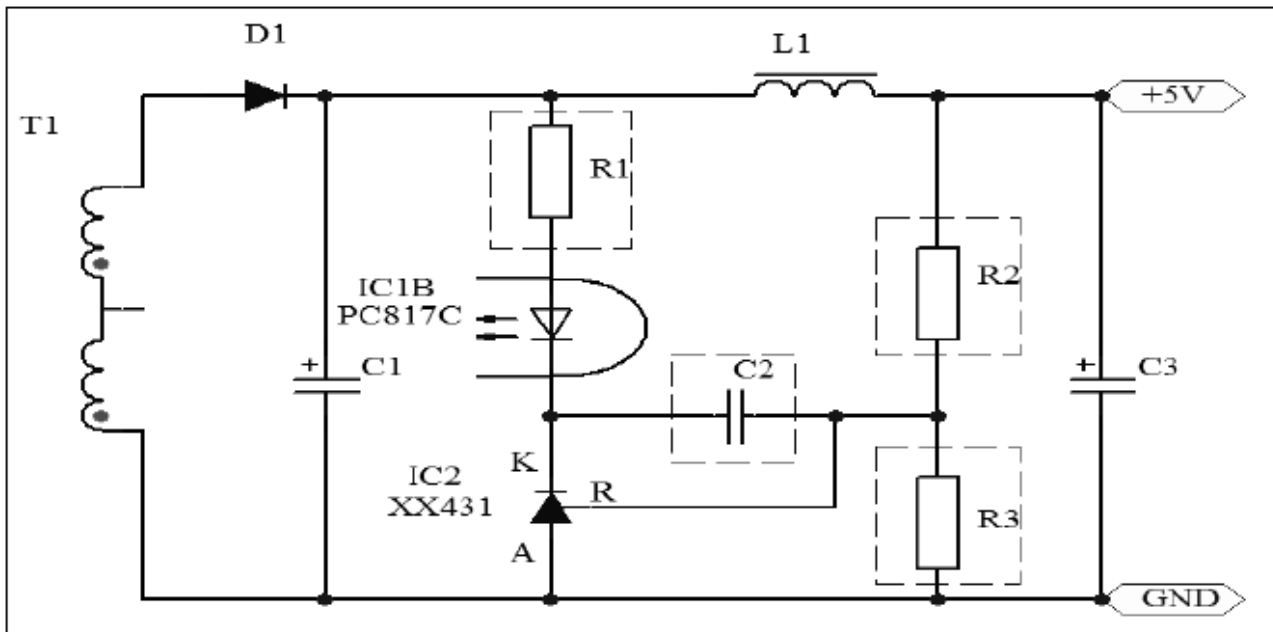
8. ELECTRICAL CHARACTERISTIC

Parameter	Condition	Value			Unit
		Min.	Typ.	Max.	
Vcc (Work Power Supply)	25°C	4.90	5.00	5.30	V
Current of Vcc	VDD=5.0V	70	100	200	UA
K pin current	6V>VDD>5.3V	0.2	8	15	mA
Temperature changing rate	VDD=5.0V -20--+125°C	4.95	5.0	5.05	V

9. APPLICATION CIRCUIT



CIRCUIT WITH DK450 IC



NORMAL CIRCUIT WITHOUT DK450

Comparing the above two circuit, it is seen that circuit with DK450 and reduce the use of R1, R2, R3 and C2.

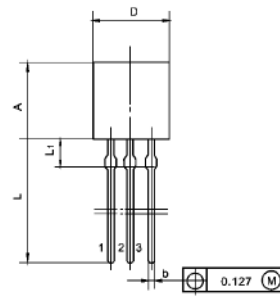
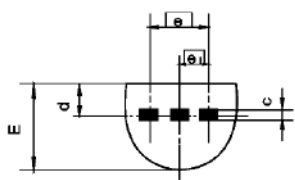
10. MECHANICAL AND PACKING INFORMATION

TO-92

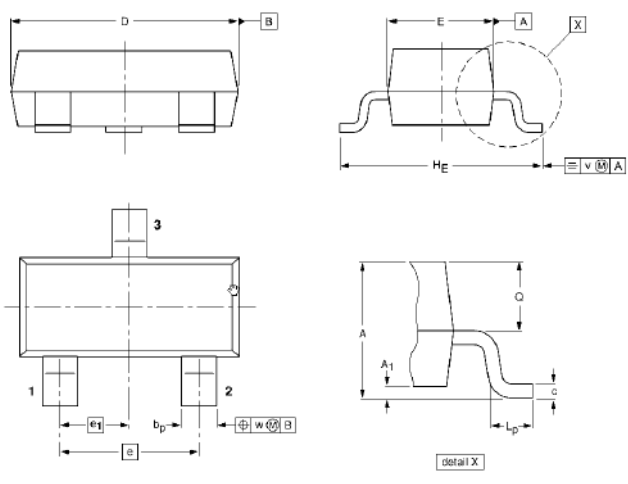
TO-92 MECHANICAL DATA

UNIT: mm

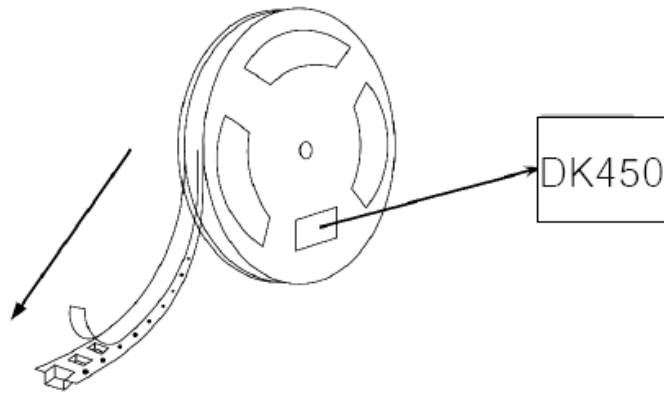
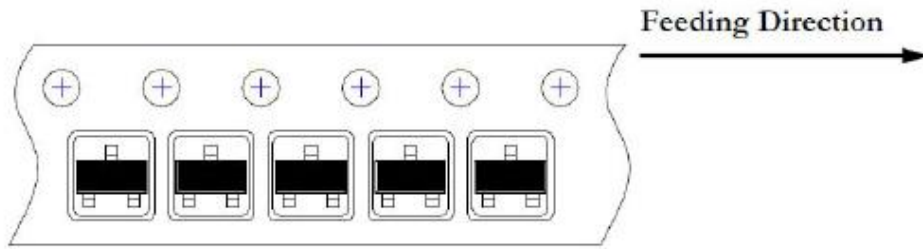
SYMBOL	min	nom	max
A	4.3		5.3
b	0.3		
c	0.3		
φ D	4.3		5.2
D			
d	1.0		1.7
E	3.2		4.2
e		2.54	
e1		1.27	
L	12.7		
L1			2.0



SOT-23



UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1



•Packing quantity

MODEL	QTY/inner carton	QTY/master carton
TO-92	1000	10000
SOT-23	3000	30000