

I _o =100mA bipolar LDO regulator IC I _o =100mA双极型低压降稳压IC			
			
TK705xxS (SOT23-5)	TK706xxH (SON2017-6)	TK707xxS (SOT23-5)	TK708xxH (SON2017-6)

DESCRIPTION / 说明

The TK705xxS type, the TK706xxH type, TK707xxS and the TK708xxH type are bipolar LDO regulator ICs. The packages are SOT23L-6 and SOT89-5.

They can supply 100mA output current

They are designed for portable applications with space requirements, battery powered system and any electronic equipment.

They offer low dropout voltage.

The output voltage is internally fixed from 1.5 to 10.0V.

TK705xxS型, TK706xxH型, TK707xxS型和TK708xxH型是双极型低压降稳压IC。其封装为SOT23L-6和SOT89-5。

可以提供100mA的输出电流。

设计用于有空间限制的便携式设备, 电池供电系统和电子设备。

不需要旁路降噪电容。

提供低压降。

输出电压固定为1.5至10.0V。

FEATURES / 特性

- High accuracy
- Low dropout voltage
- Thermal and over current protection
- High maximum load current
- Active high on/off control
- Packages: SOT23-5, SON2017-6
- 高精度
- 低压降
- 过热及过流保护
- 最大负载电流
- 高电平开/关控制
- 封装: SOT23-5, SON2017-6

ABSOLUTE MAXIMUM RATINGS / 绝对最大额定值

Parameter	参数	Symbol 符号	Rating	额定值	Unit 单位	Remarks	备注
Operating voltage range	工作电压范围	V _{OP}	2.1 to 14		V		
Operating temperature range	工作温度范围	T _{OP}	-40 to +85		°C		
Power dissipation	功耗	P _D	460 400		mW	TK705xxS, TK707xxS TK706xxH, TK708xxH	

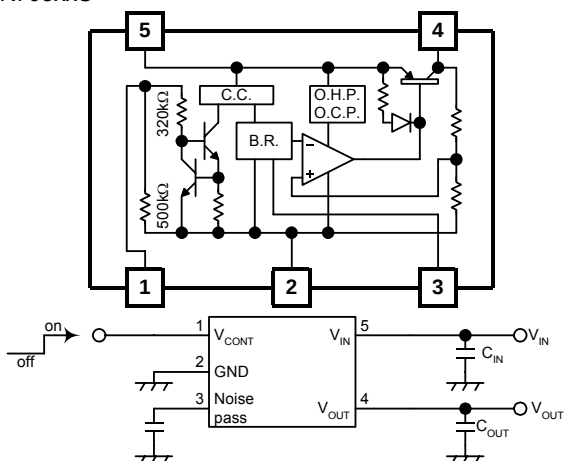
ELECTRICAL CHARACTERISTICS / 电气特性

V_{in}=V_{out}TYP+1V, V_{cont}=1.8V, T_A=T_j=25°C

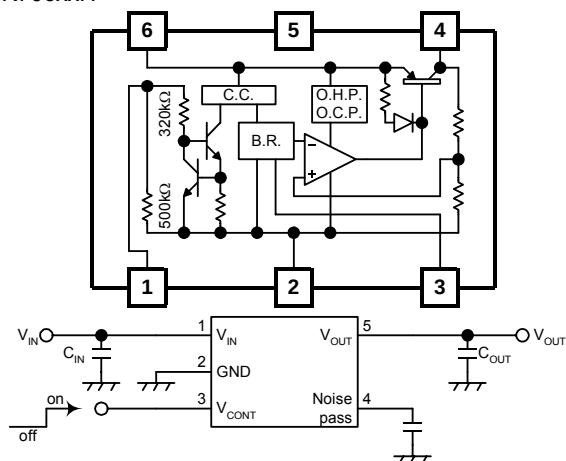
Parameter	参数	Symbol 符号	Value/值			Unit 单位	Conditions	条件
			MIN. 最小	TYP. 典型	MAX. 最大			
Output voltage	输出电压	V _{out}	±1.5% or ±50mV			V	I _{out} = 5mA	
Line regulation	线性调整率	LinReg		0.0	5.0	mV	ΔV _{in} = 5V	
Load regulation	负载调整率	LoaReg		6.0	15.0	mV	I _{out} =5mA~50m, TK70530S, TK70630H, TK70730S, TK70830H	
				15.0	35.0	mV	I _{out} =5mA~100mA, TK70530S, TK70630H, TK70730S, TK70830H	
Dropout voltage *1	电压降 *1	V _{drop}		90	160	mV	I _{out} = 50mA	
				160	280	mV	I _{out} = 100mA	
Output current *2	输出电流*2	I _{out}			100	mA		
Peak output current *2	最高电流*2	I _{out} PEAK	150	200		mA	When (V _{out} TYP×0.9)	
Quiescent current	静态电流	I _q		75	120	A	I _{out} = 0mA	
Standby current	待机电流	I _{standby}		0.0	0.1	A	V _{cont} = 0V	
Ground pin current	接地脚电流	I _{gnd}		1.5	2.7	mA	I _{out} = 50mA	
Control terminal *3 控制端子*3								
Control current	控制电流	I _{cont}		5.0	15.0	A	V _{cont} = 1.8V	
Control voltage	控制电压	V _{cont}	1.8			V	V _{out} ON state	
					0.35	V	V _{out} OFF state	

BLOCK DIAGRAM / 框图

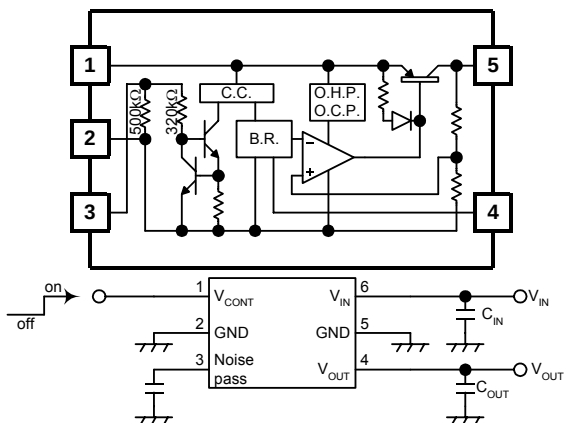
■ TK705xxS



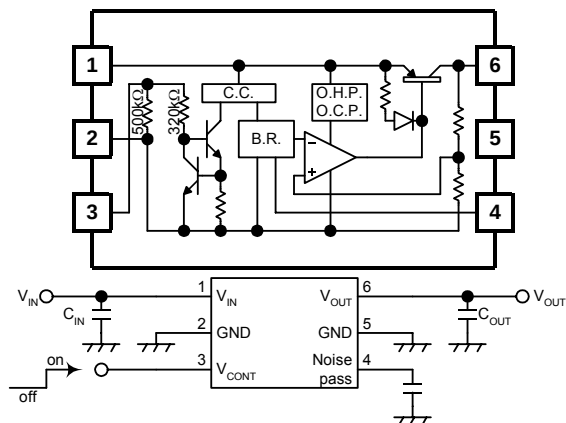
■ TK706xxH



■ TK707xxS



■ TK708xxH



* C.C....Control Circuit, O.H.P...Over Heat Protection, O.C.P...Over Current Protection, B.G....Band gap Reference

* C.C....控制电流, O.H.P...过热保护, O.C.P...过流保护, B.G....波段间隙参考