

ADVANCED INFORMATION

FEATURES

- Up to 5A Output Current Capability With External PNP Transistor
- Built-in Short Circuit Protection
- Excellent Load Regulation
- CMOS/TTL Compatible ON/OFF Switch
- Built-in Reverse Bias Current Protection Circuit
- Built-in Over Voltage Shutdown (V_{IN})
- Built-in Thermal Shutdown
- Broad Operating Voltage Range

DESCRIPTION

The TK732xx is a controller IC for a low dropout voltage regulator. The TK732xx and the external PNP power transistor provide standard output voltages from 2 to 12 volts and output current from 0.25 to 5 amperes. By utilizing an external PNP power transistor, low dropout voltage at high current can be readily achieved. The internal electronic switch can be controlled by TTL or CMOS logic levels. The device is in the ON state when the control pin is pulled to a high logic level. A pin for a bypass capacitor is provided, which connects to the internal circuitry, to lower the overall output noise level.

The current limit characteristics can be configured as continuous (constant current) or pulsed (cycling). An internal thermal shutdown circuit limits the junction tempera-

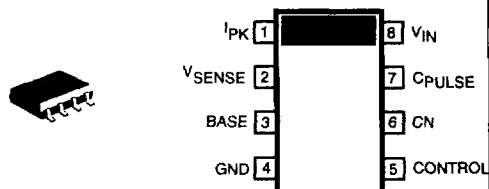
LOW DROPOUT REGULATOR

APPLICATIONS

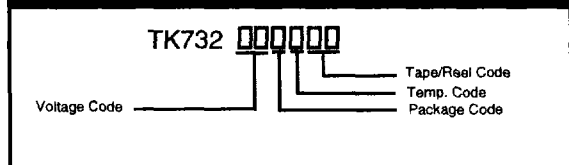
- Battery Powered Systems
- Cellular Phones
- Cordless Telephones
- Radio Control Systems
- Wireless Communications Systems
- Battery Operated Equipment
- Portable Instrumentations
- Portable Computers
- Personal Digital Assistants
- Local Area Network (LAN) Receivers

tures to below 150 °C. An internal overvoltage protection circuit shuts down the regulator when the input voltage rating is exceeded. In the OFF mode, the output of the regulator becomes a high impedance. This prevents the output capacitor from being rapidly discharged for backup to the load.

TK732xx



ORDERING INFORMATION



VOLTAGE CODE	
20 = 2.0 V	37 = 3.7 V
21 = 2.1 V	38 = 3.8 V
22 = 2.2 V	39 = 3.9 V
23 = 2.3 V	40 = 4.0 V
24 = 2.4 V	41 = 4.1 V
25 = 2.5 V	42 = 4.2 V
26 = 2.6 V	43 = 4.3 V
27 = 2.7 V	44 = 4.4 V
28 = 2.8 V	45 = 4.5 V
29 = 2.9 V	46 = 4.6 V
30 = 3.0 V	47 = 4.7 V
31 = 3.1 V	48 = 4.8 V
32 = 3.2 V	49 = 4.9 V
33 = 3.3 V	50 = 5.0 V
34 = 3.4 V	80 = 8.0 V
35 = 3.5 V	90 = 9.0 V
36 = 3.6 V	12 = 12.0 V

PACKAGE CODE	
M	SOT-23L-8

TAPE/REEL CODE	
BX	Bulk/Bag
TL	Tape Left

TEMP. RANGE	
I	-40 TO 85 °C
C	-30 TO 80 °C

BLOCK DIAGRAM

