

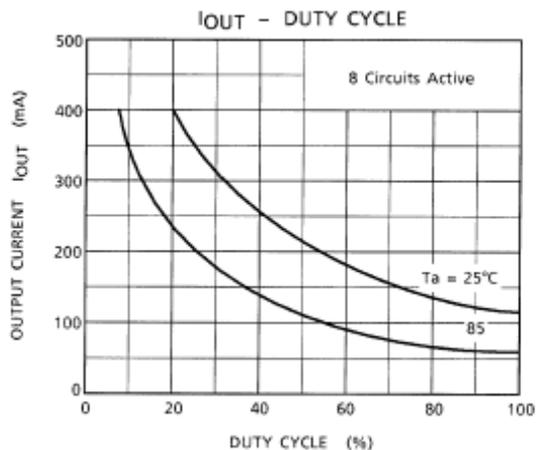
## TK-68K-8SO Programmable Pushbutton Interface With 8 Sinking Outputs

The TK-68K-8SO for the DV-66B\*, DV-68 and DV-76 video players can accept up to 9 push button inputs and has 8 outputs that can drive lights or relays. The output driver is a ULN2803 which can drive voltages up to 50 volts or up to 500 ma, total heat dissipation of 500 mW. There is 1 RS-232 port for user programming and interface. It is based on a [Parallax](#) Basic Stamp 2 module and can be re-programmed with free Basic software as needed. \*DV-66B revision 2.0C

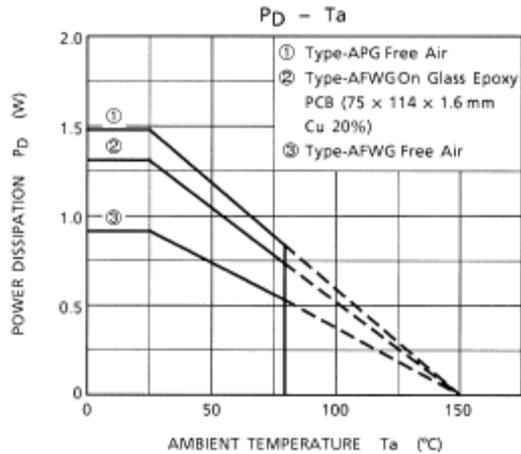
The basic TK-68K-8SO will accept up to 6 pushbutton inputs. When a button is pressed the DV-68 video player will play the corresponding track and the corresponding output on the TK-68K-8SO will turn on to drive a LED or other small load. The LED will remain on for the length of the currently playing track on the DV-68.

The TK-68K-8SO outputs are "sinking". This means they supply a switched ground for the loads. The loads' positive side should be wired to the positive output of your power supply. The power supply can be any voltage from 3 to 48 volts DC but typically will be 5, 12 or 24 volts DC. The loads' negative or ground side will be wired to the TK-68K-8SO output. Your power supply ground will also be wired to the TK-68K-8SO which will switch on or off the ground to control the load. If you are driving LED lamps remember to use the appropriate current limit resistor in series with each LED if it is not built into the LED.

The following chart for the ULN2803 driver shows that if you have all 8 loads on at the same time they should be about 50 mA or less each. LED's are typically around 20 mA.



The following chart shows that the total power dissipation at room temperature in free air should not exceed 500 mW.



For example a 20 mA LED with a power supply of 5 volts would be 100 mW each. ( $5 \times 0.020 = 0.100$ ) The same LED at 12 volts would be 240 mW each. If you need more output power please consider using the TK-68K-8HSO which uses individual FET transistor outputs that are capable of much higher loads.

Team Kingsley LLC can customize the TK-68K-8SO for other special applications. Please email [sales@teamkingsley.com](mailto:sales@teamkingsley.com) or call us at 618-797-9951 to discuss your needs.

# TK-68K-8SO

## Basic Wiring

