

SANYO**STK6865H****Thick Film Hybrid IC
BIDIRECTIONAL MOTOR DRIVER
WITH BRAKE FUNCTION****TENTATIVE****General Description**

The STK6865H is a bidirectional DC motor driver IC with brake function that is fabricated using our unique IMST (Insulated Metal Substrate Technology) structure. The motor speed can be controlled by the PWM input signal as well as the "L"/"H"-level DC input signal.

Features

- . Bidirectional motor driver and brake function, and protector against simultaneous application of input for forward/reverse drive.
- . Braking available with input open.
- . Braking available at forward drive mode
- . PWM input signal-used speed control available (25kHz max.)

Applications

- . Especially suited for driving DC brush-provided motors used in PPC's, printers, sewing machines.

Maximum Ratings at Ta=25°C

Maximum Supply Voltage	V_{CCmax}	Quiescent mode 7,8 - 9,10 *1	50	V
Maximum Output Current	I_{omax}	DC 1 pulse 0.5sec.	8	A
Operating Case Temperature	T_{cmax}		105	°C
Junction Temperature	T_{jmax}		150	°C
Storage Temperature	T_{stg}		-40 to 125	°C

*1 Refer to Remarks in Sample Application Circuit.

Maximum Allowable Operating Conditions

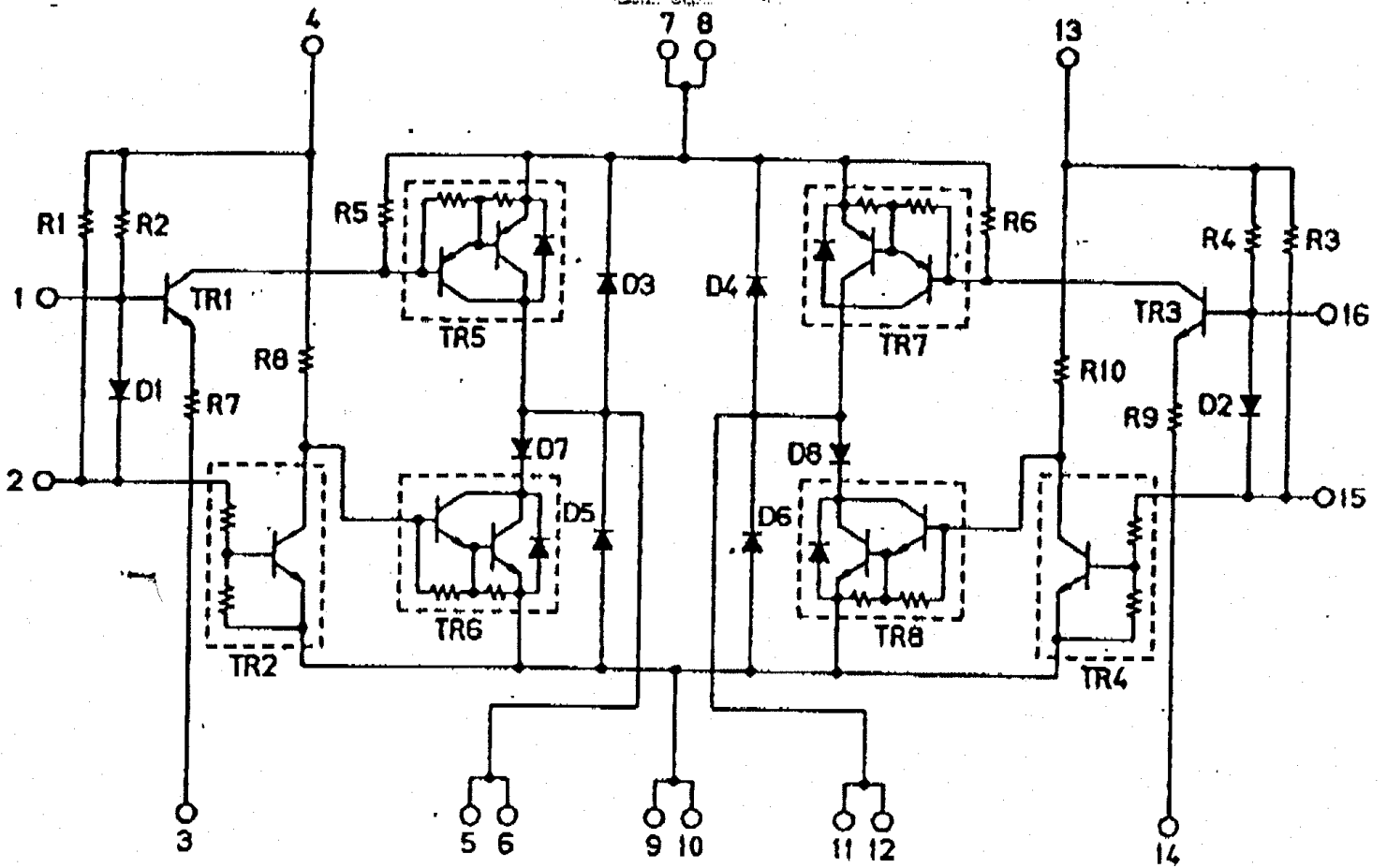
Supply Voltage	V_{CCmax}	Operating mode 7,8 - 9,10 *2	20 to 42	V
Output Current	I_{omax}		4	A

*2 Refer to Remarks in Sample Application Circuit.

Electrical Characteristics at Ta=25°C, $V_{CC}=24V \pm 0.5V$

			min	typ	max	unit
Quiescent Current	I_{cco}	Input pin open		35		mA
Output Saturation Voltage-1	V_{st-1}	$I_o=4A(TR_5, TR_7)$		1.5		V
Output Saturation Voltage-2	V_{st-2}	$I_o=4A(TR_6+D_7, TR_8+D_8)$		3.5		V
Input "L"-Level Current-1	I_{IL-1}	Pin 1, pin 16 (pin 2, pin 15 open)		3.5		mA
Input "L"-Level Current-2	I_{IL-2}	Pin 2, pin 15 (pin 1, pin 16 open)		4.2		mA
Input "L"-Level Voltage-1	V_{IL-1}	Pin 1, pin 16		1.0		V
Input "L"-Level Voltage-2	V_{IL-2}	Pin 2, pin 15		1.0		V
Diode Forward Voltage	V_{df}	$I_{df}=1A$		1.5		V

Equivalent Circuit



Sample Application Circuit

