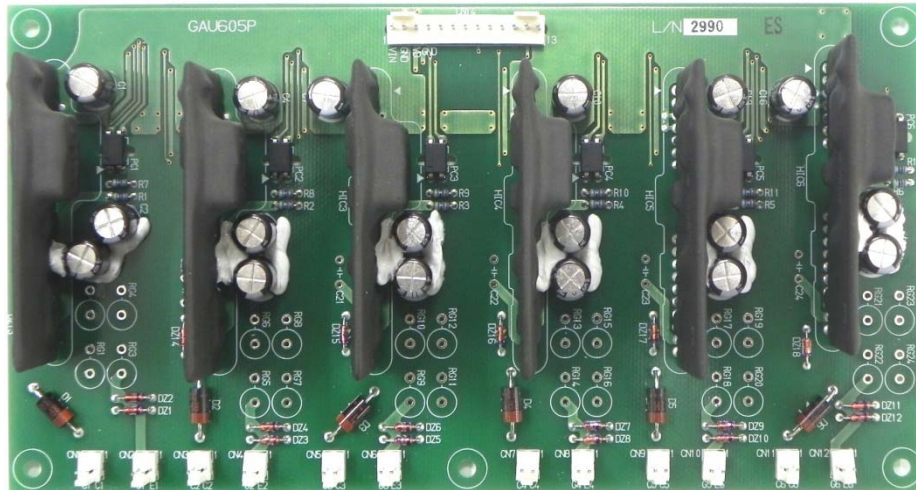


## GAU605P-15252 Universal Gate Drive Prototype Board of 6ch



### FEATURE

- >Built in the isolated DC-DC converter for gate drive
- >Output peak current is +/-5A(max)
- >Built in short circuit protection
- >Electrical isolation voltage is 2500Vrms (for 1 minute)
- >Two way power supply system for drivers and input signal (VD=15V , VIN=5V)
- >CMOS compatible input interface

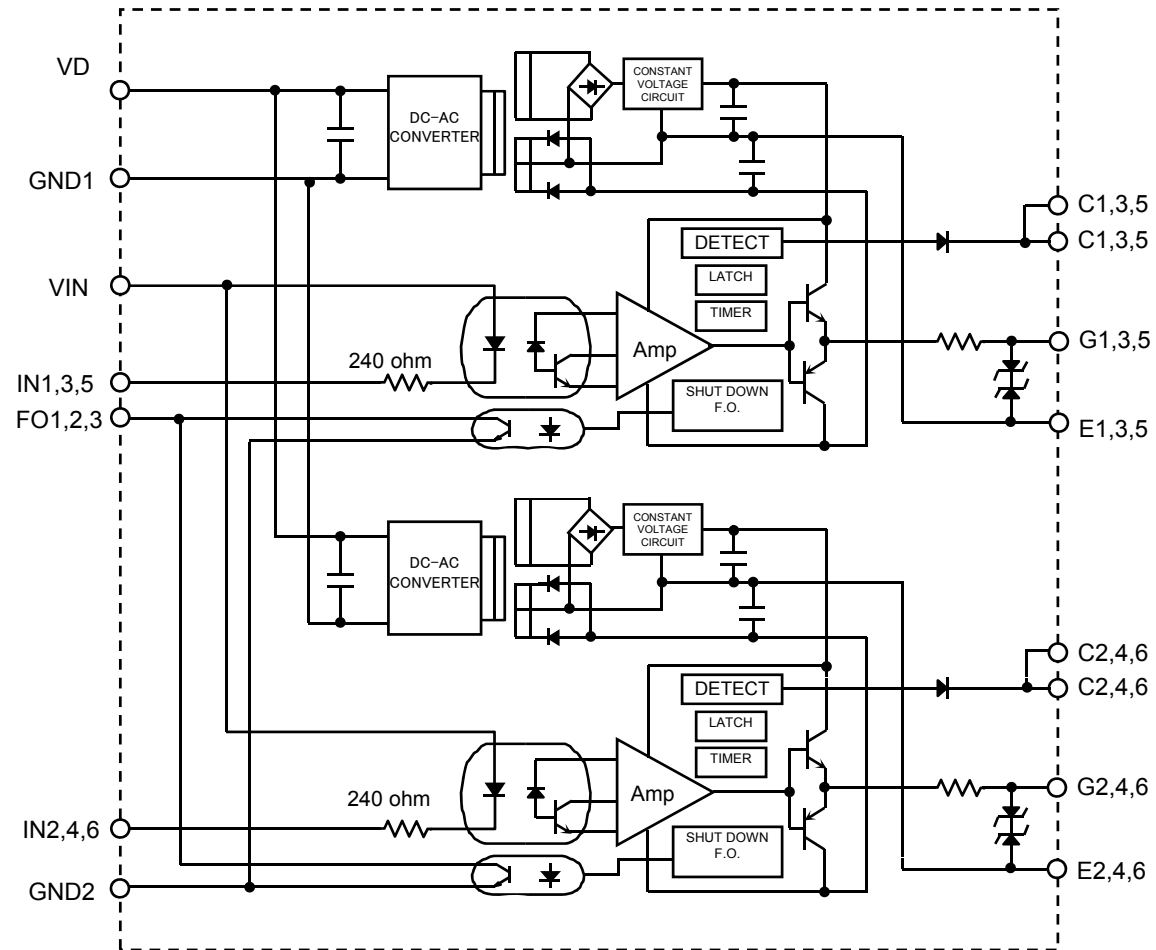
Size : 188 x 100 x 44t

Image Photograph

Gate Driver : VLA551-01R

Oct. 2013

## BLOCK DIAGRAM



Above block is built in GAU605P-15252 by 3 block.

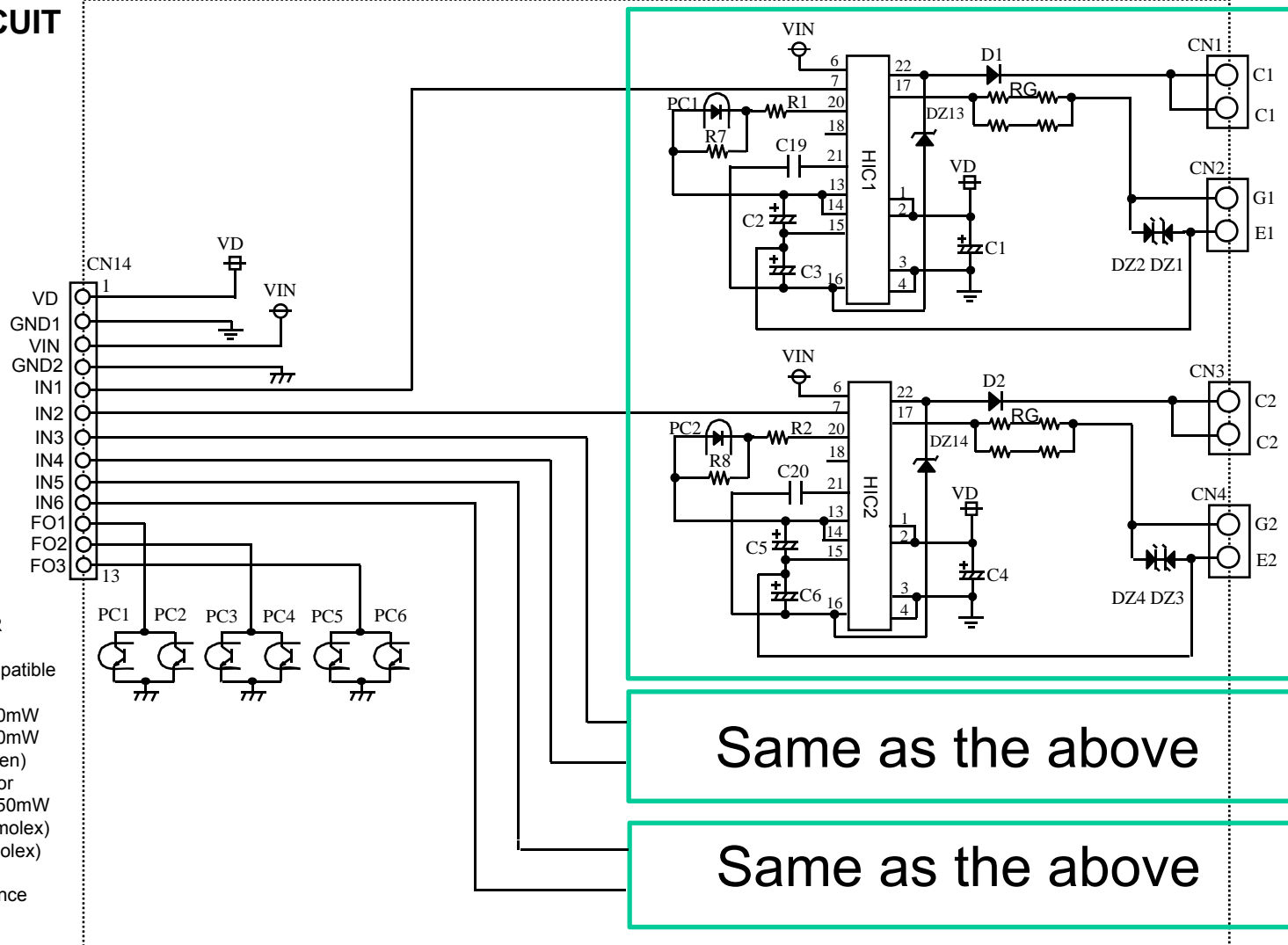
## MAXIMUM RATINGS (unless otherwise noted, Ta=25C)

Symbol	Parameter	Conditions	Ratings	Unit
VD	Supply voltage	DC	-1 ~ 16.5	V
VI	Input signal voltage	Applied between VIN – IN1,2,3,4,5,6 50% Duty cycle , pulse width 1ms	-1 ~ +7	V
IOHP	Output peak current	Pulse width 2us	-5	A
IOLP			5	A
Viso	Isolation voltage	Sine wave voltage 60Hz, for 1min	2500	Vrms
Topr	Operating temperature	No condensation allowable	-20 ~ 70	deg C
Tstg	Storage temperature	No condensation allowable	-25 ~ 85	deg C
Idrive	Gate drive current	Gate average current (Per one circuit)	100	mA

## ELECTRICAL CHARACTERISTICS ( unless otherwise noted, Ta=25C, VD=15V)

Symbol	Parameter	Conditions	Limits			Unit
			Min	Typ	Max	
VD	Supply voltage	Recommended range	14.2	15	15.8	V
VIN	Pull-up voltage on input side	Recommended range	4.75	5	5.25	V
IIH	"H" input signal current	Recommended range	10	13	16	mA
f	Switching frequency	Recommended range	-	-	20	kHz
RG	Gate resistance	Recommended range	2	-	-	ohm
VOH	Plus bias voltage	-	14	15.3	16.5	V
VOL	Minus bias voltage	-	-5.5	-	-11	V
tPLH	"L-H" propagation time	IIH = 13mA	-	0.4	1	us
tPHL	"H-L" propagation time	IIH = 13mA	-	0.4	1	us
VSC	SC detect voltage	-	15	-	-	V

# INNER CIRCUIT

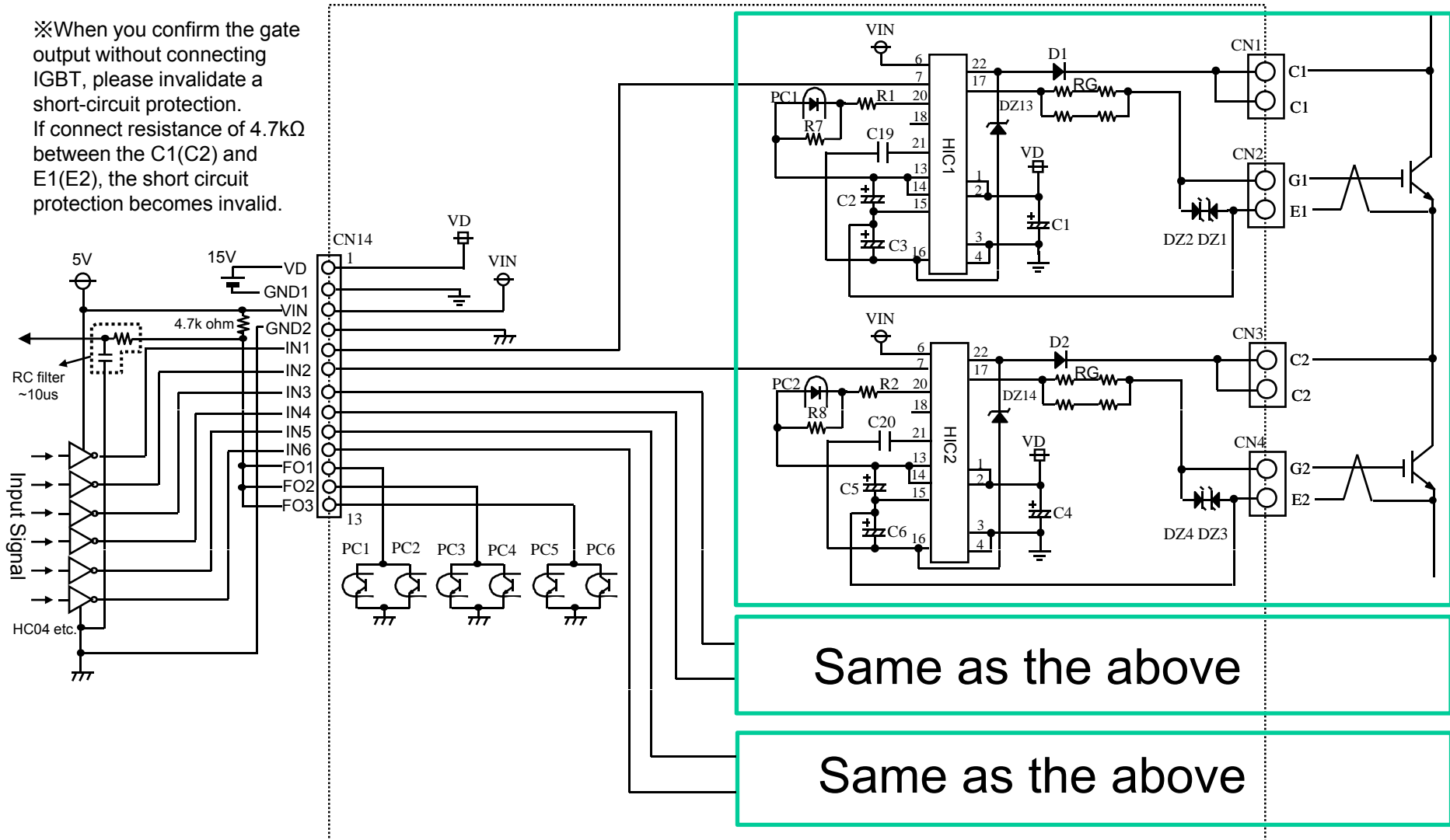


- HIC1 ~ 6 VLA551-01R (ISAHAYA)
- PC1 ~ 6 TLP781 compatible (TOSHIBA)
- DZ1 ~ 12 Vz=18V, 500mW
- DZ13 ~ 18 Vz=30V, 500mW
- D1 ~ 6 RP1H(SanKen)
- RG Gate Resistor
- R1 ~ 12 4.7k ohm, 250mW
- CN1 ~ 12 5045-02A (molex)
- CN14 5045-13A(molex)
- C1 ~ 18 100uF,50V Low impedance

\*1) Gate Resistor is not installed at the time of shipment.Please solder the chosen resistor.  
 \*2) C19-24 is not installed at the time of shipment.Please solder the chosen condenser if needed.(50V,ceramic)

## APPLICATION EXAMPLE

※When you confirm the gate output without connecting IGBT, please invalidate a short-circuit protection.  
If connect resistance of 4.7kΩ between the C1(C2) and E1(E2), the short circuit protection becomes invalid.



## Part arrangement & Size

