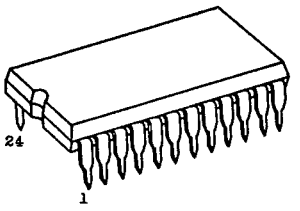
CCD DRIVER
(Si-Monolithic)

T3854

T3854 is a clock driver for TDC201C (CCD Area Image Sensor) with all drive outputs inclusive.



DIP 24 (6D24A-P)

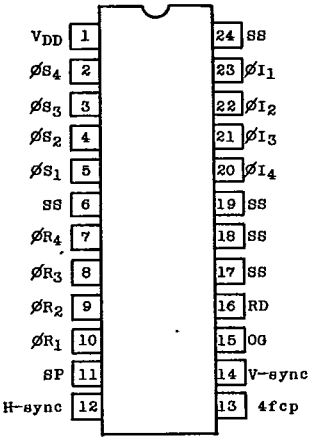
FEATURES:

- CMOS Device
- Low Power Dissipation
- +8V Single Supply Operation
- On-chip DC Bias Circuit
- On-chip Blanking Pulse and Pulse Generator Capable of TTL Interface by External Resistor.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{DD}	-0.5~10	V
Input Voltage	V_{IN}	-0.5~V_{DD}+0.5	V
Power Dissipation	P_D	600	mW
Operating Temperature	T_{opr}	-10~60	°C
Storage Temperature	T_{stg}	-55~150	°C
Lead Temp./Time	T_{sol}	260	°C
		10	sec

PIN ASSIGNMENT
(TOP VIEW)



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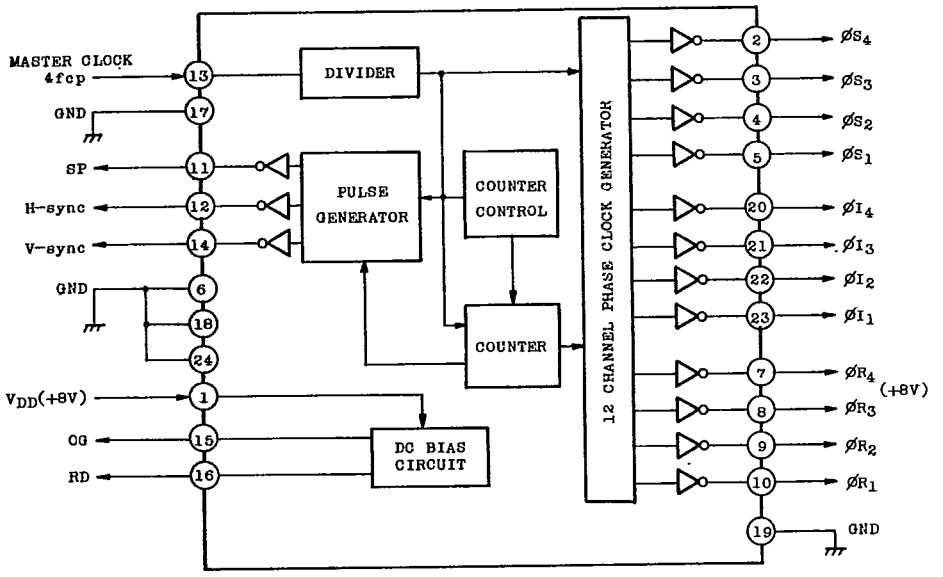
BLOCK DIAGRAM



PIN DESCRIPTION

ϕR_1	Clock (Read Out Register)	(Phase 1)
ϕR_2		(Phase 2)
ϕR_3		(Phase 3)
ϕR_4		(Phase 4)
ϕI_1	Clock (Imaging Area)	(Phase 1)
ϕI_2		(Phase 2)
ϕI_3		(Phase 3)
ϕI_4		(Phase 4)
ϕS_1	Clock (Storage Area)	(Phase 1)
ϕS_2		(Phase 2)
ϕS_3		(Phase 3)
ϕS_4		(Phase 4)

SP	Sampling Pulse
H-sync	Horizontal Synchronize Pulse
V-sync	Vertical Synchronize Pulse
RD	Reset Drain
OG	Output Gate
4 fcp	Master Clock Pulse
SS	Substrate (GND)

T3854

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Clock Frequency		4 fcp	-	V_{DD}=8.0V	0.1	-	6.4	MHz
Input Voltage	"H" Level	V_{IH}	-	V_{DD}=8.0V	6.7	7.0	-	V
	"L" Level	V_{IL}	-	V_{DD}=8.0V	-	0.8	1.3	
Input Current	"H" Level	I_{IH}	-	V_{DD}=V_{IN}=8.0V	12	30	40	mA
	"L" Level	I_{IL}	-	V_{IL}=GND, V_{DD}=8.0V	-12	-30	-40	
Output Current	"L" Level	I_{OL1}	-	(Note 1)	2.7	-	-	mA
	"L" Level	I_{OL2}	-	(Note 2)	1.0	-	-	
Output Voltage	"H" Level	V_{OH}	-	V_{DD}=8.0V, I_{OH}=-2μA	7.6	7.8	-	V
DC Bias Output Voltage		V_{RD}	-	V_{DD}=8.0V, I_R=-3.6μA	-	6.5	-	V
		V_{OG}	-	V_{DD}=8.0V, I_R=-2.5μA	-	2.5	-	
Supply Current		I_{DD}	-	V_{DD}=8.0V, 4fcp=100kHz	-	25	50	mA

Note 1 : V_{DD}=8.0V, V_{OL}=0.4V
Pin 2,3,4,5,7,8,9,10,20,21,22,23

Note 2 : V_{DD}=8.0V, V_{OL}=0.4V
Pin 11,12,14

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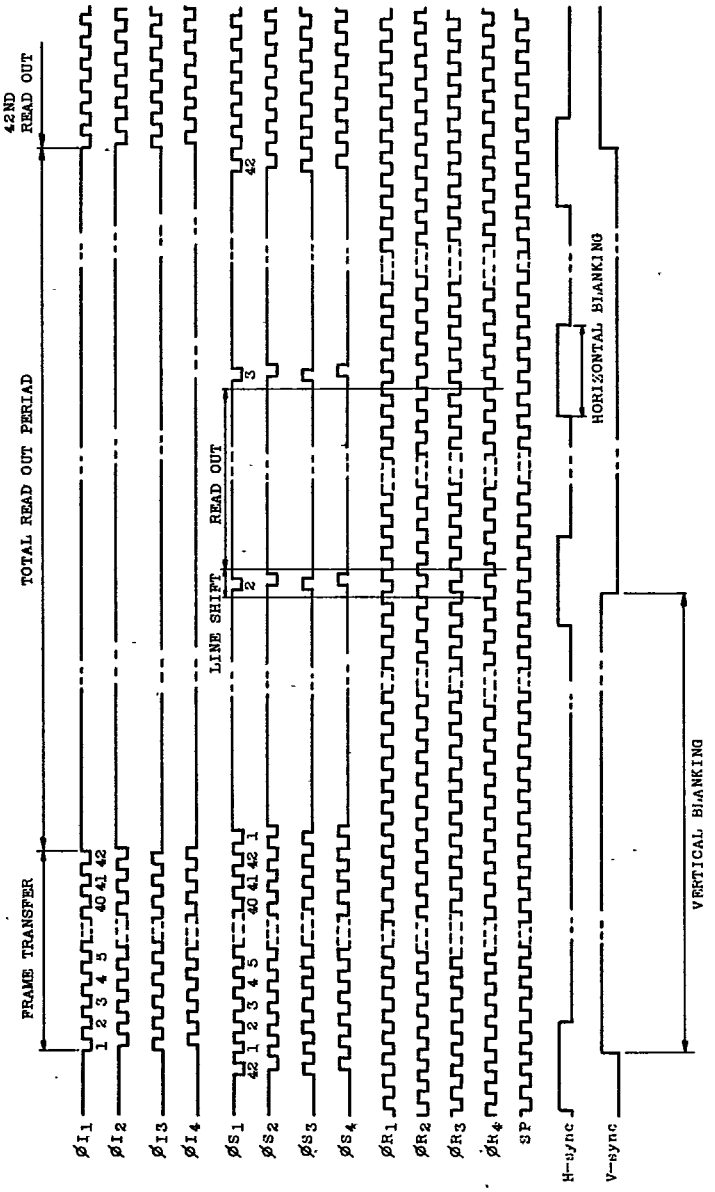
TIMING CHART



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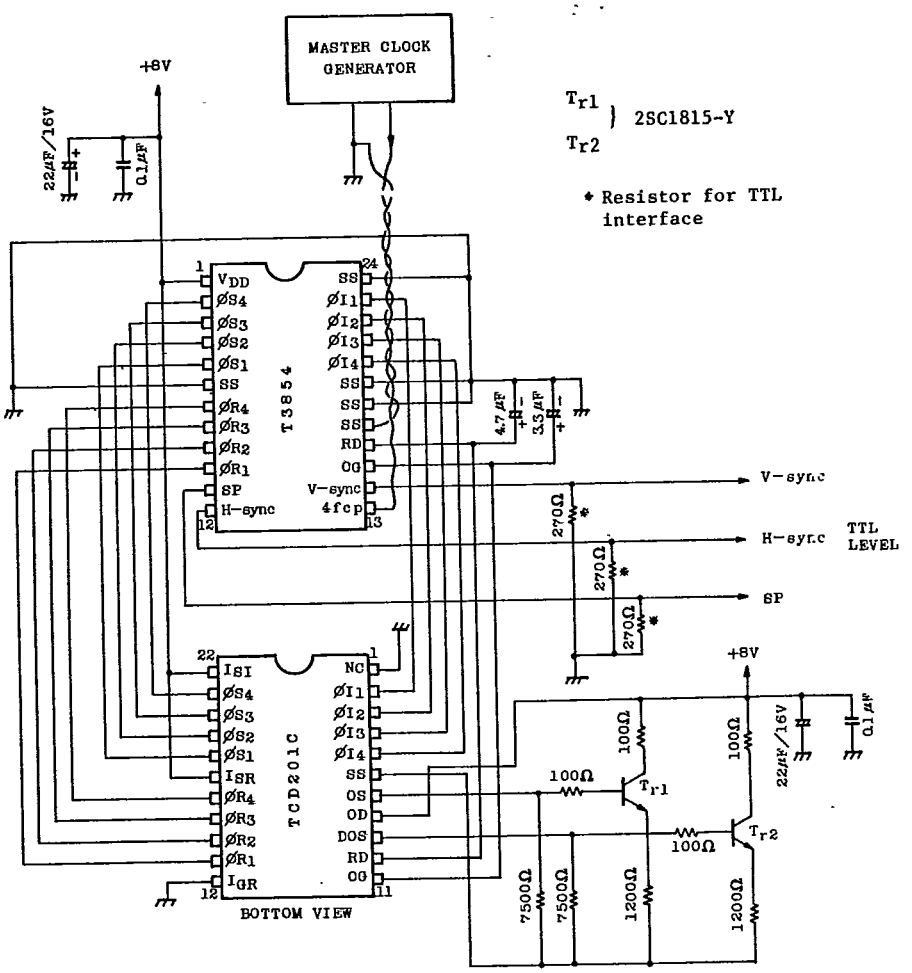
APPLICATION



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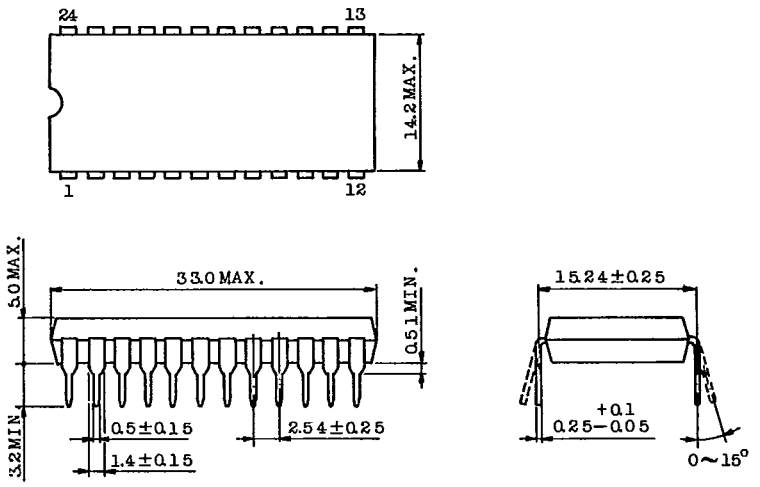
PACKAGE OUTLINE (6D24A-P)

Unit in mm



Note) Lead pitch is 2.54 and tolerance is ±0.25 against theoretical center of each lead that is obtained on the basis of No.1 and No.24 leads.