

TENTATIVE

STK180SERIES

Thick Film Hybrid IC
CTV/CRT Display
Video Output Circuit

< Overview >

CTV and CRT display imaging equipment has developed extremely high resolution in the last few years. CTV and video monitors are meeting trends such as large screens and new media, including video disks and S-VHS, digital TV, practical IDTV use, and the EDTV and HDTV of the future. High quality images are being matched by developments in image processing technology for CRT display applications in and CAD/CAM sectors.

As image signal sources are upgraded, video output circuits for hardware such as CTV and CRT displays must handle a wider range of frequency, leading to problems such as larger mounting area, increased noise output, more complex circuit design and increased power dissipation.

As a result, the use of hybrid ICs to implement overall cost reduction, simplified EMI counter-measures, standardization of circuit components, and enhanced productivity through circuit compactness, lightness and reduced component counts, has become a pressing issue.

The thick-film division is meeting market needs such as these with the exclusive Sanyo Electric IMST technology, and the newly developed low-capacitance IMST substrates, developing the STK180 series of video output HICs with superb heat radiation and EMI suppression characteristics.

< Feature >

- Use of IMST low-capacitance substrates for wide bandwidth.
- Superb heat radiation and EMI suppression characteristics.
- Video output module internalizes essential all circuitry.
- Use of bare chips for high density mounting and reliability.
- External peaking terminal for enhanced general use.
- Single-chipping of RGB circuits for higher integration level.
- Compact, light-weight package for easy mounting in tube neck region.
- Series from video bandwidths through CTV and CRT display applications.
- Correspond with AKB for CTV.

Specifications and information herein are subject to change without notice.

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C A code of Series D

S T K

1 8

3

B

STK180SERIES
(Video Output IC)

Circuit Composition

1. One circuit for CRT display (8pin)
2. One circuit for CRT display (9pin)
3. Three circuit for CRT display
4. One circuit for CTV
5. Three circuit for CTV

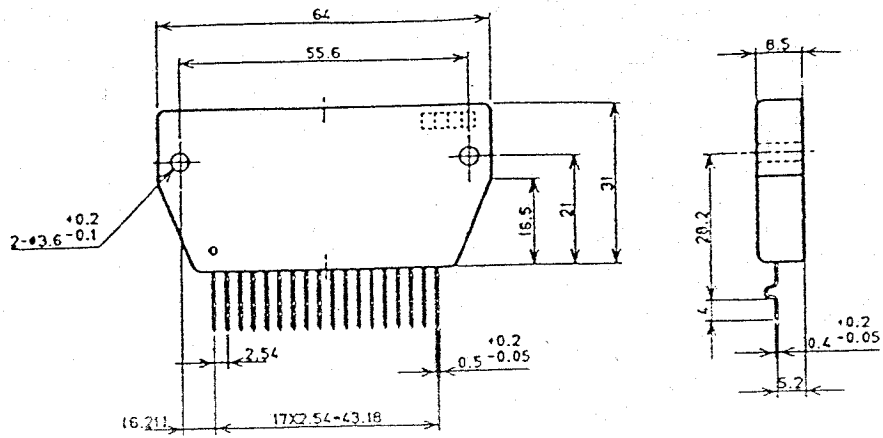
Frequency Range

	CTV	CRT Display
A	10MHz	—
B	15MHz	40MHz
C	20MHz	50MHz
D	35MHz	70MHz
E	—	100MHz

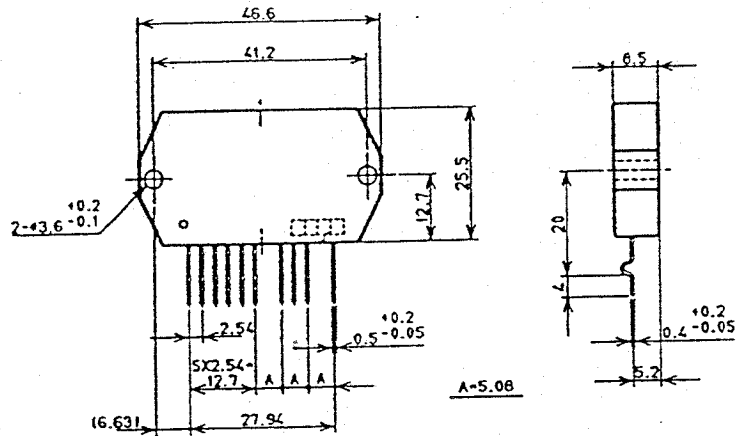
Application	Type	Power Supply $V_{CC \text{ max}}$ (V)	Frequency Range			Number of Circuit (ch/1pack)	Case Outline	Circuit Composition (Page)
			BW (MHz)	V_{p-p} (V)	V_{CC} (V)			
CTV	STK185A	300	10	100	200	3	(a)	5 ~ 6
	STK185B	300	15	100	200	3	(a)	7 ~ 8
	STK184C	300	20	100	200	1	(b)	9
	STK184D	250	35	80	180	1	(b)	9
CRT Display	STK181B	120	40	40	100	1	(c)-1	10
	STK182B						(c)-2	11
	STK183B	120	40	40	100	3	(d)	12
	STK181C	120	50	40	100	1	(c)-1	10
	STK182C						(c)-2	11
	STK183C	120	50	40	100	3	(d)	12
	STK181D	100	70	* 40	70	1	(c)-1	10
	STK182D						(c)-2	11
	STK181E	80	100	40	70	1	(c)-1	10
	STK182E						(c)-2	11

Sample Application

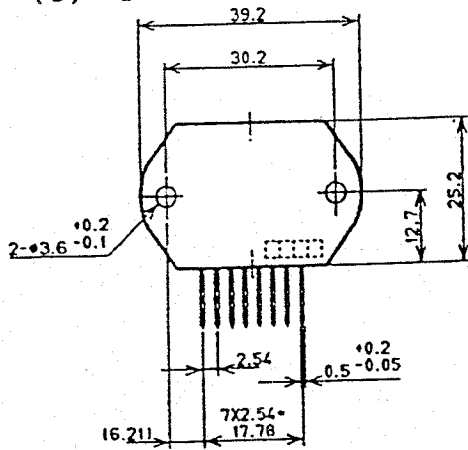
Application	Genre	Horizontal Frequency f_H (KHz)	Video Frequency BW(MHz)	Most Suitable IC
CTV	AV	15.75	~ 10	STK185A
	IDTV EDTV	31.5	15 ~ 20	STK185B STK184C
	HDTV	33	~ 35	STK184C/184D
CRT Display	Personal Computer Monitor	24	10 ~ 30	STK181B/183B STK182B
	Personal Computer Terminal Monitor	32	30 ~ 50	STK181B/183B STK182B STK181C/183C STK182C
	OA-FA Monitor CAD/CAM	48	50 ~ 70	STK181C/183C STK182C STK181D/183D STK182D
		64	100 ~ 120	STK181E STK182E



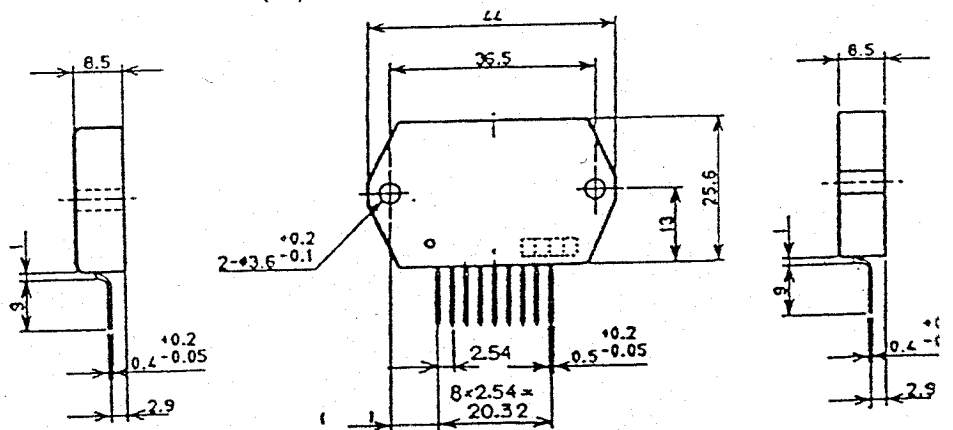
(b)



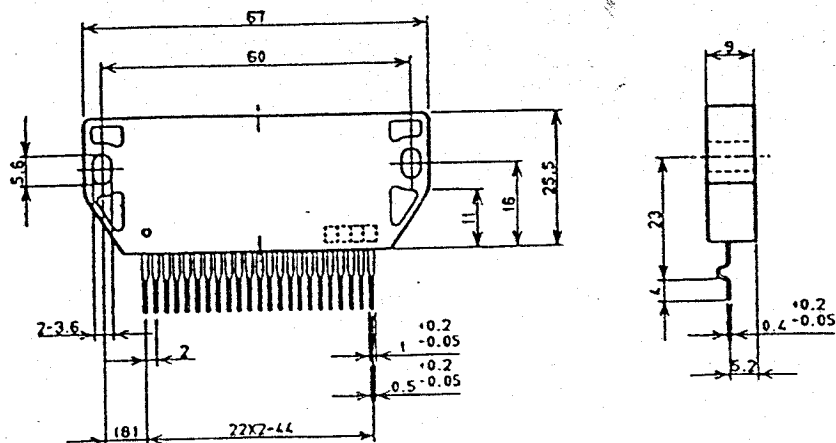
(c) - 1



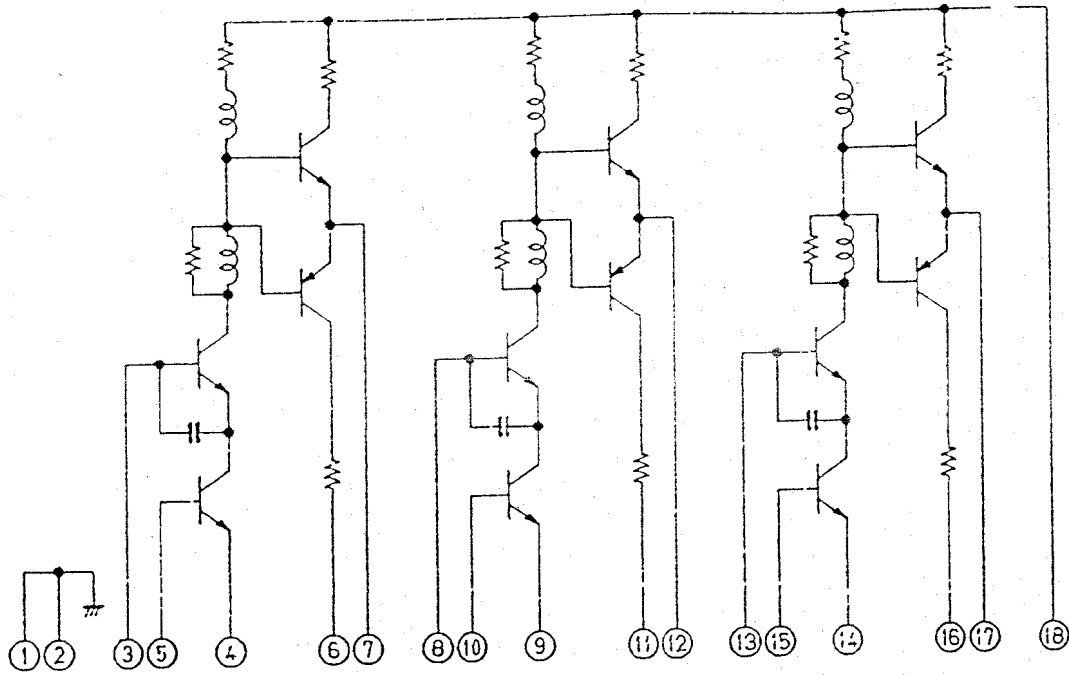
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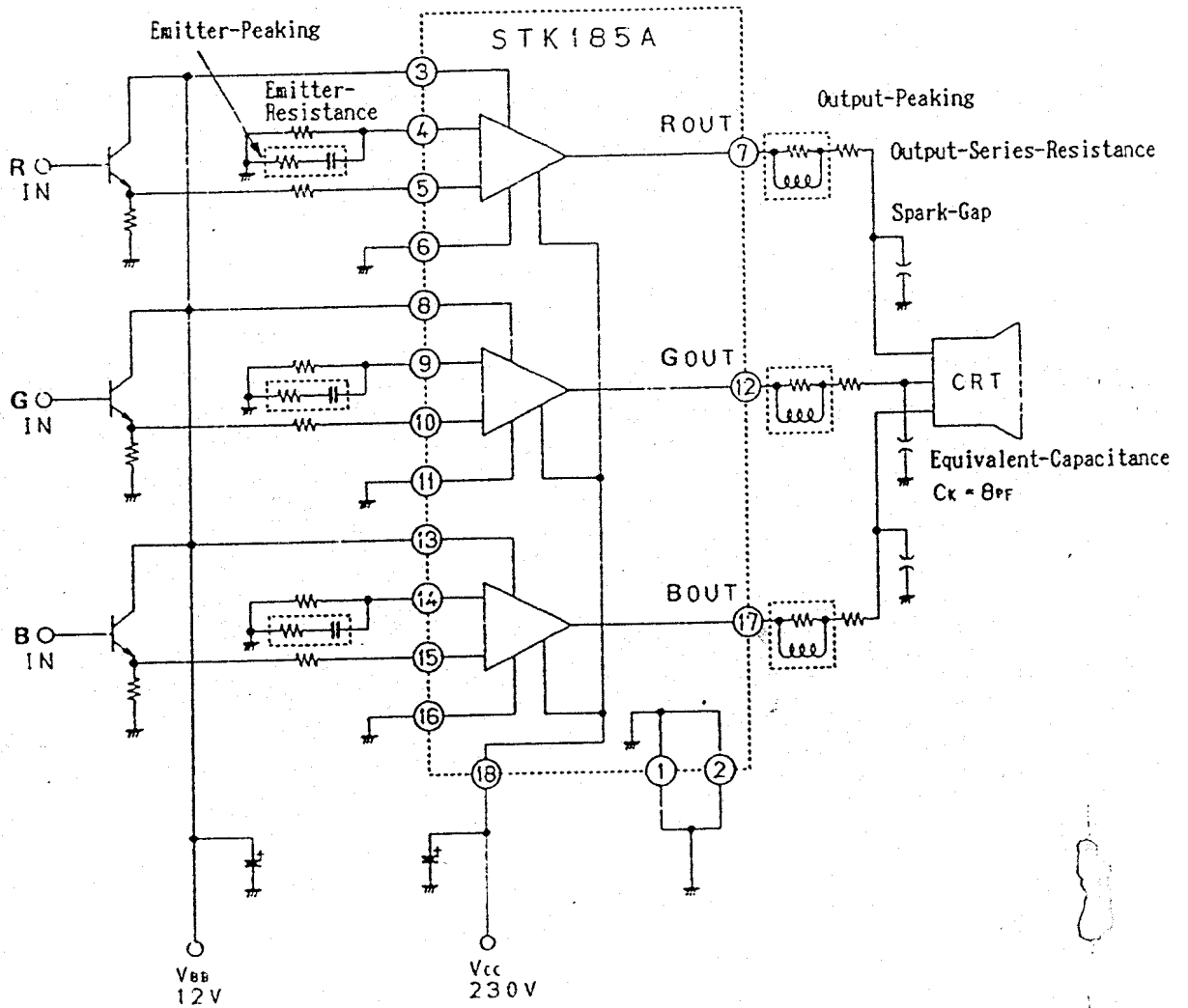
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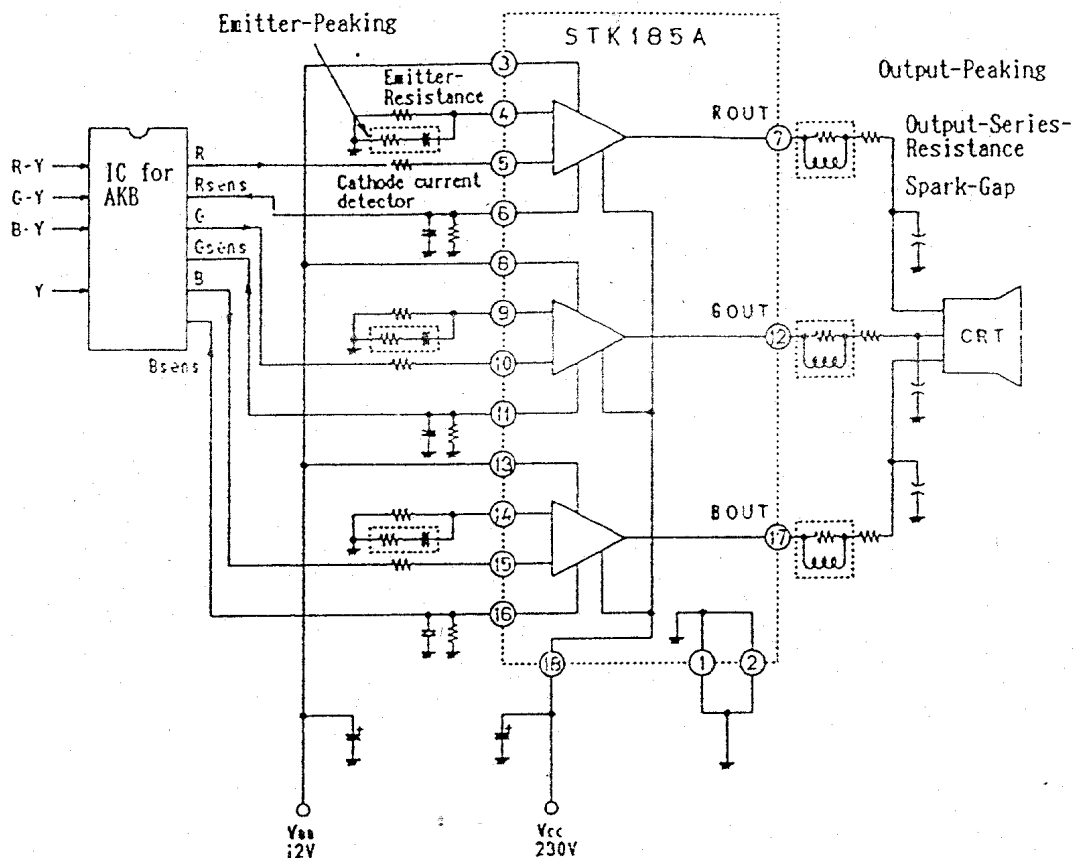
≡ Equivalent Circuit ≡



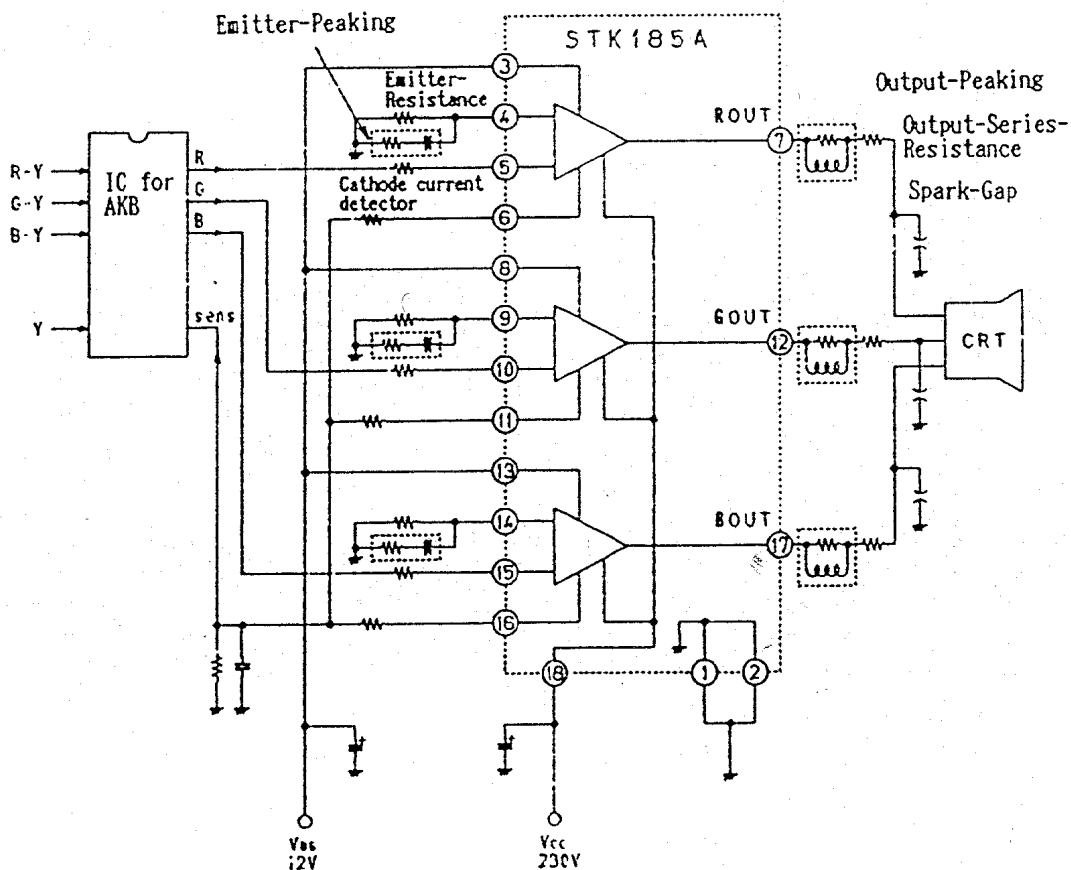
≡ Sample Application Circuit ≡ (A method of R.G.B. primary color drive)



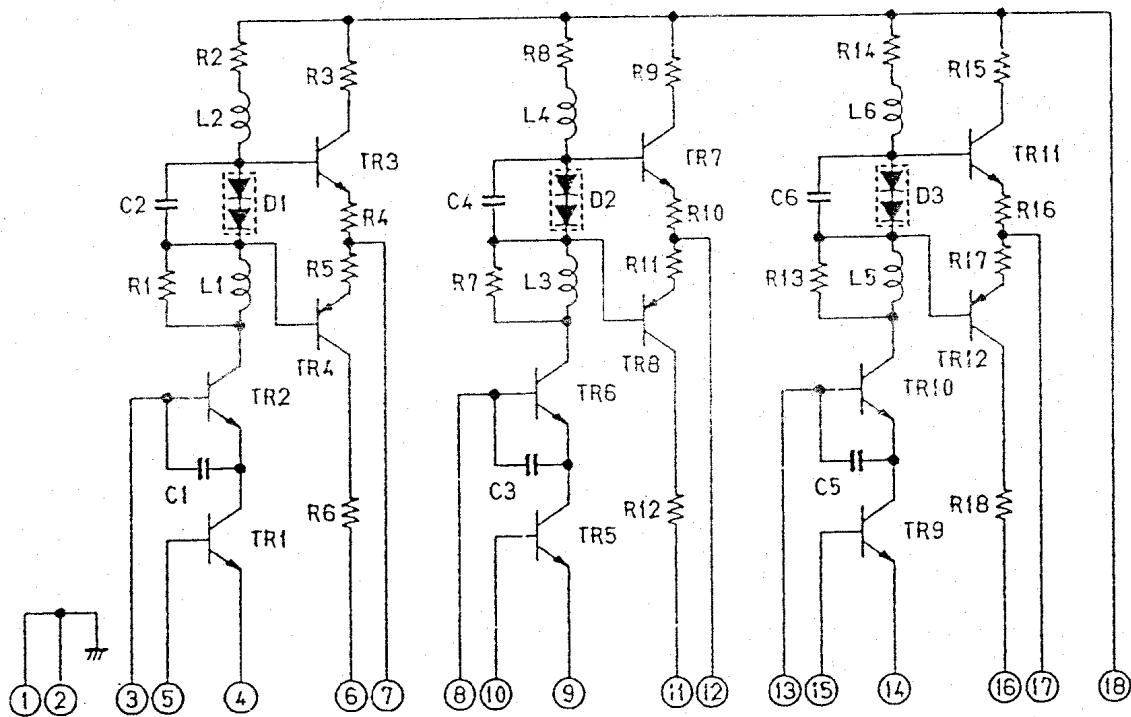
RGB Parallel Processor



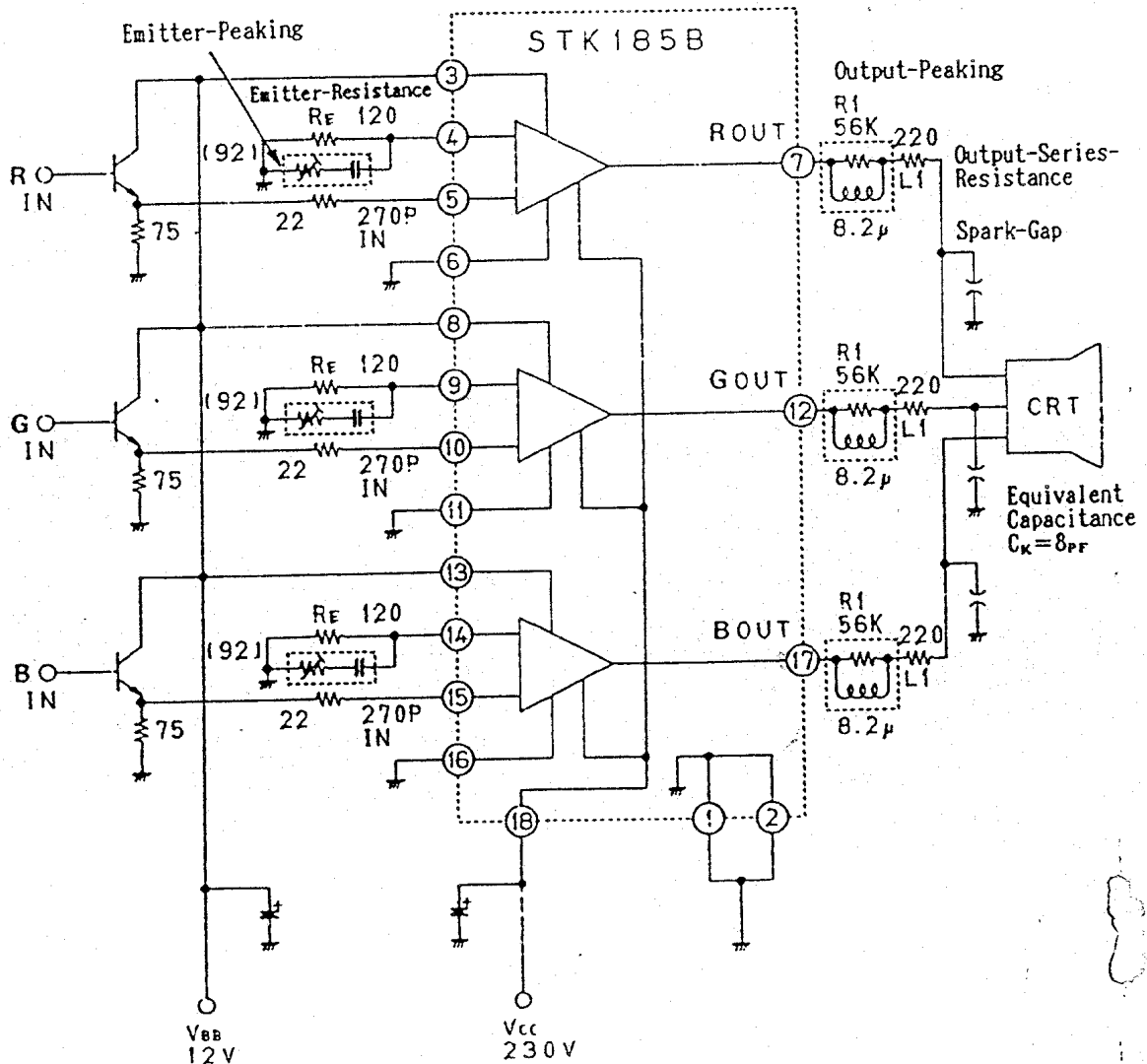
RGB Parallel Processor



Equivalent Circuit

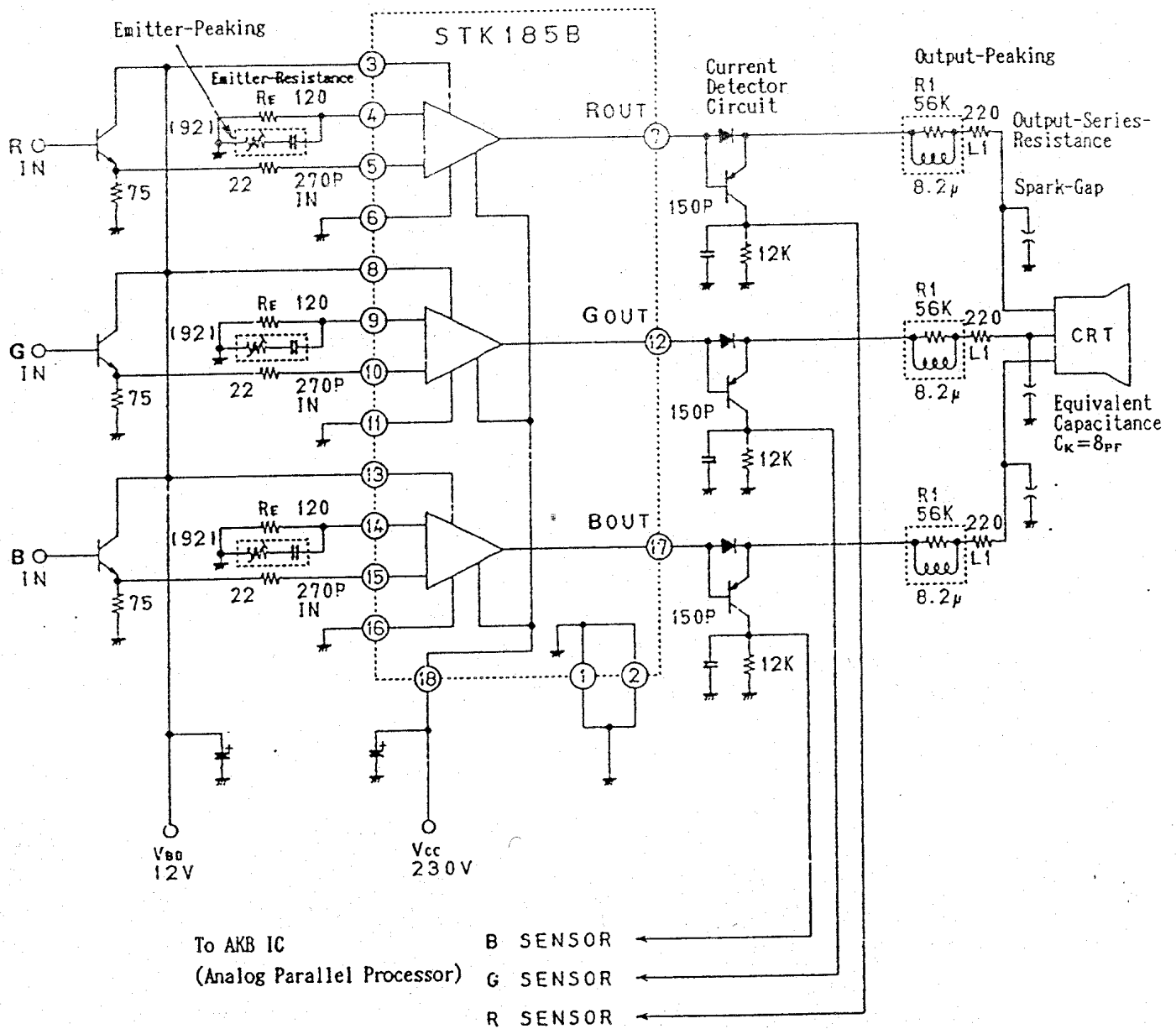


Sample Application Circuit

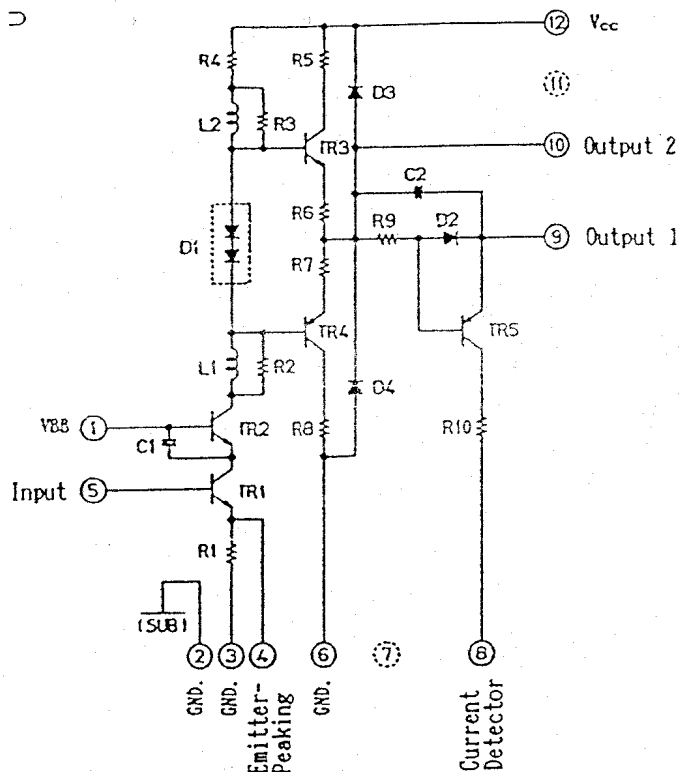


STK185B AKB APPLICATION

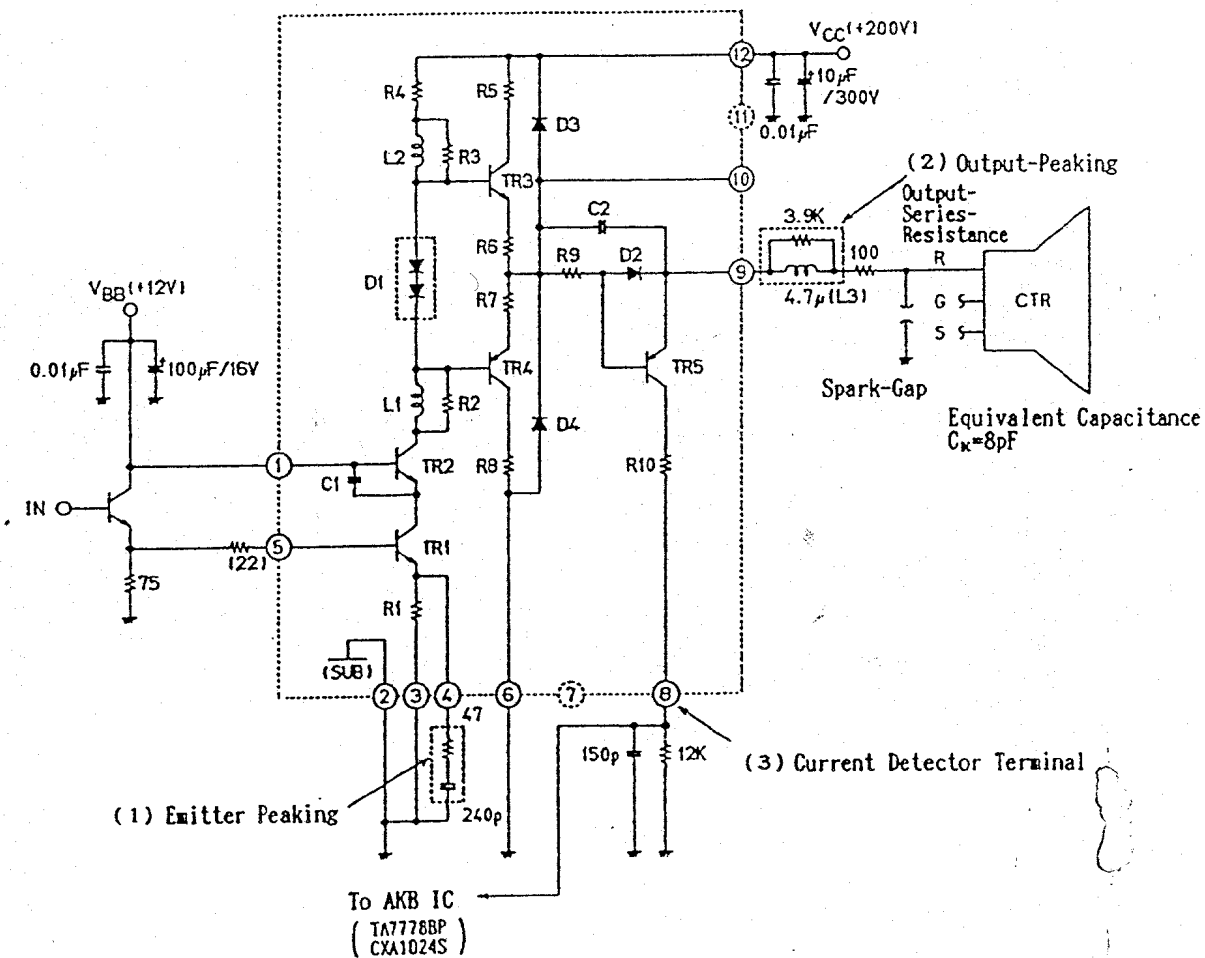
RGB Parallel Processor



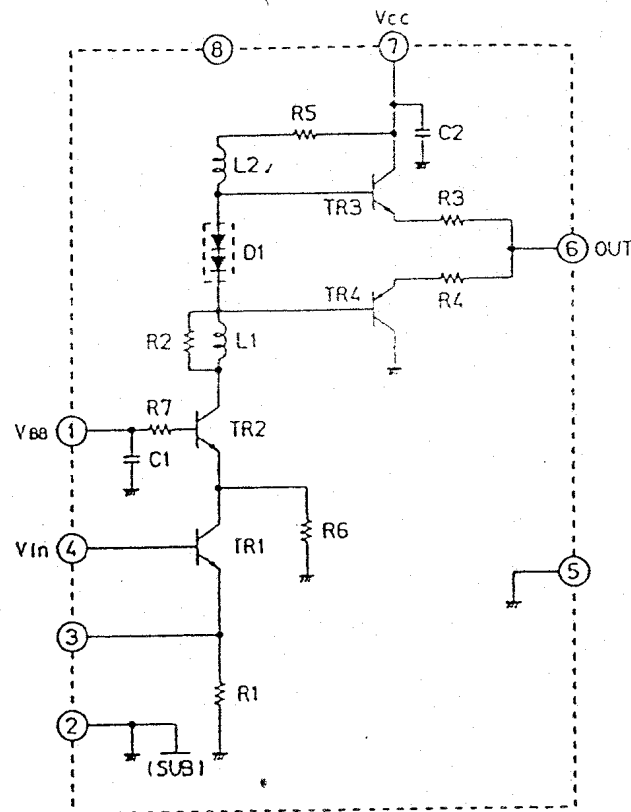
◁ Equivalent Circuit ▷



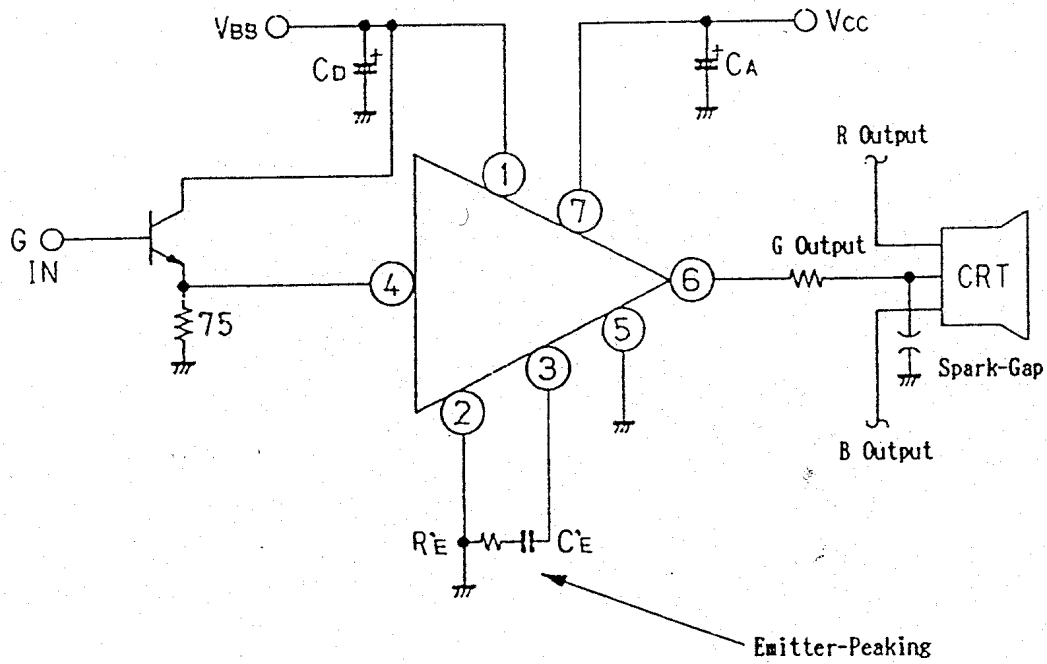
◁ Sample Application Circuit ▷



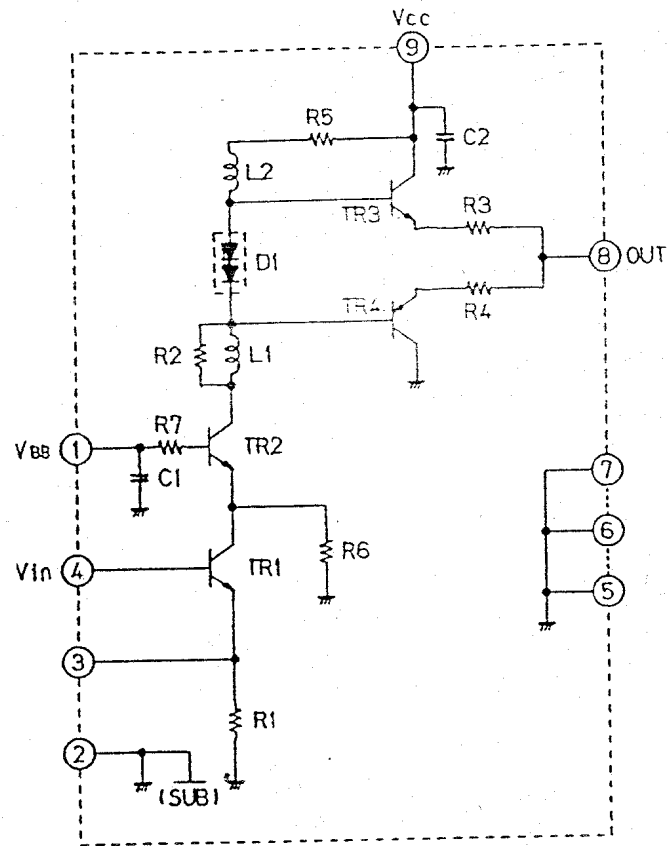
Equivalent Circuit



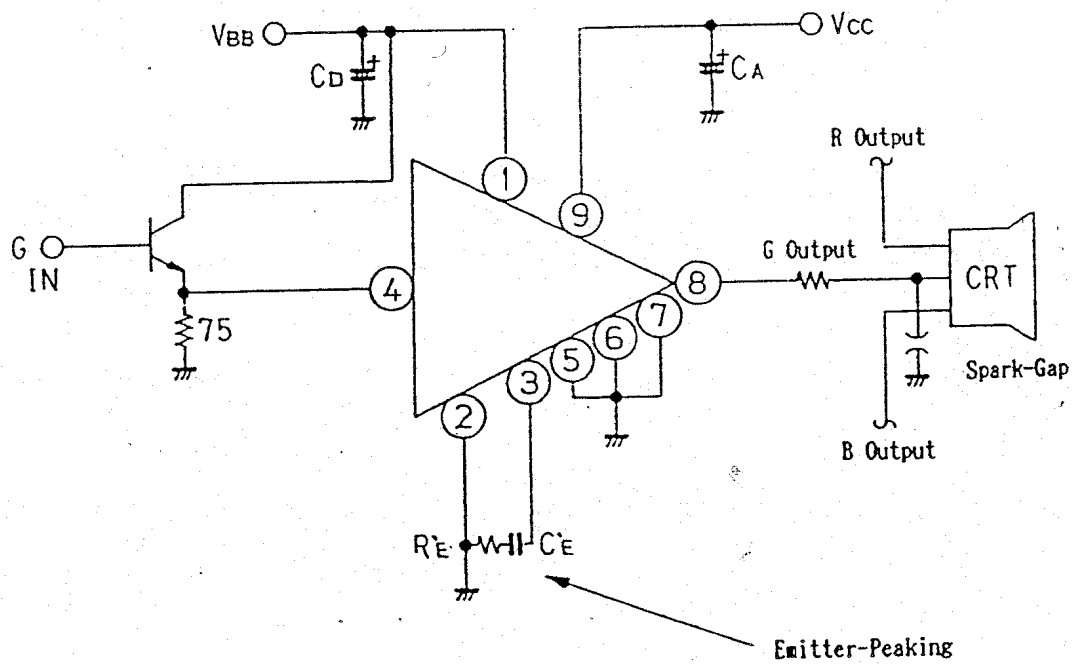
Sample Application Circuit



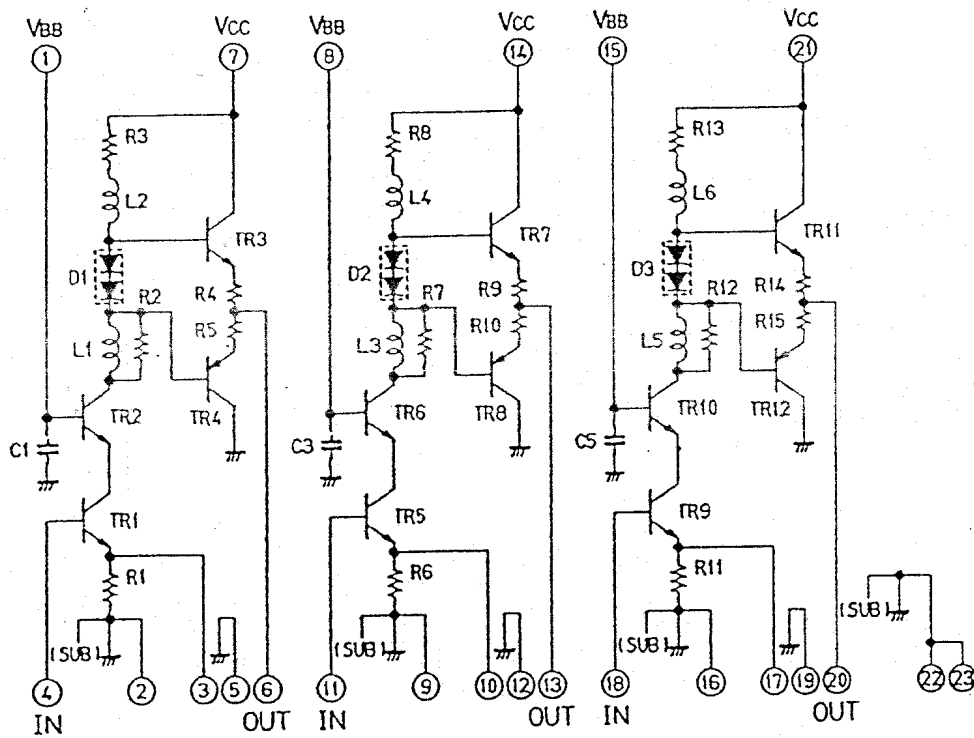
◁ Equivalent Circuit ▷



◁ Sample Application Circuit ▷



Equivalent Circuit



Sample Application Circuit

