

SANYO

No.1351B

LA7950**TV Field Frequency Discriminator**

The LA7950 is an IC designed to discriminate the field frequency based on the relation between TV vertical signal and horizontal signal. It is suited for use in automatically setting various types of video equipment, such as color TV, to PAL/NTSC mode.

Functions

- . Sync separation
- . Field frequency counter
- . Vertical sync separation
- . Forced (manual) output select

Features

- . Small-sized package (SEP10)
- . Stable to external disturbance such as noise
- . Many output pins for mode select (4 outputs)
- . Wide operating voltage range (6 to 13V)

Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V_2 max	14	V
Load Current	$I_{7,8,9,10}$	20	mA
Allowable Power Dissipation	P_d max, $T_a \leq 60^\circ\text{C}$	300	mW
Operating Temperature	T_{opr}	-20 to +85	°C
Storage Temperature	T_{stg}	-40 to +125	°C

Operating Conditions at Ta=25°C

			unit
Recommended Supply Voltage	V_2	12	V
Operating Voltage Range	V_2 op	6 to 13.2	V

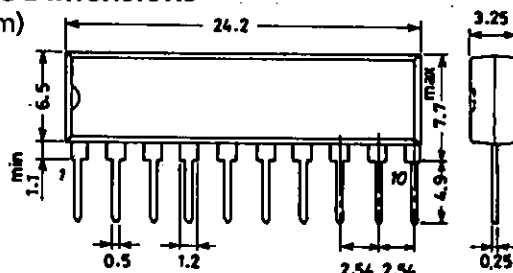
Operating Characteristics at Ta=25°C, V₂=12V, See Test Circuit.

		min	typ	max	unit
V_{CC2} Current Dissipation	I_{CC2}	8	12	16	mA
Sync Separation Output Voltage	V_3	10.5	11.0	11.5	V
Pin 1 DC Voltage	V_{DC1}	4.8	5.3	5.8	V
Forced PAL Operation Start Voltage	V_{POS}			11.2	V
Forced PAL Nonoperation Max. Voltage	V_{PNH}	8.6			V
Forced NTSC Operation Start Voltage	V_{NOS}	0.4			V
Forced NTSC Nonoperation Min. Voltage	V_{NNL}			2	V
Output Saturation Voltage	$V_{7,8,9,10}$ $I_{7,8,9,10}=10\text{mA}$			0.7	V

Package Dimensions

(unit : mm)

3043A



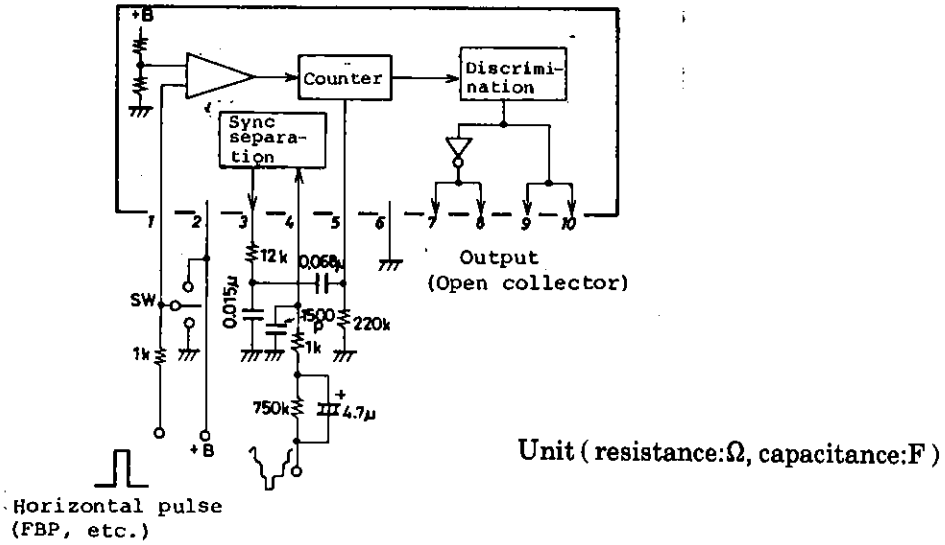
SANYO: SEP10

SANYO Electric Co., Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

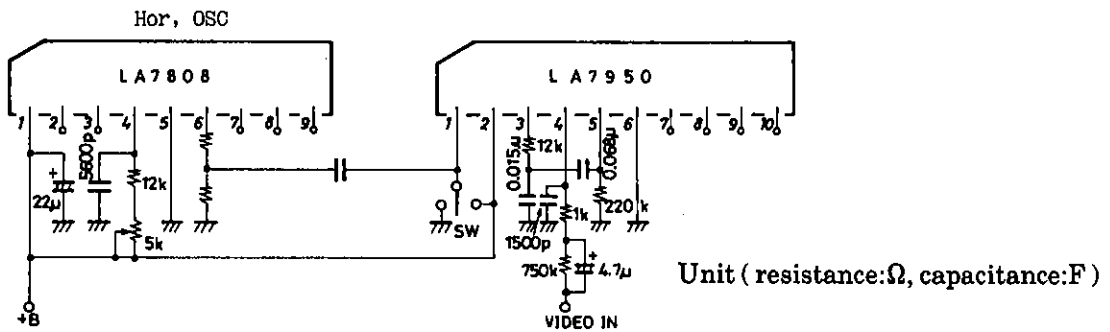
LA7950

Functional Blocks and Sample Application Circuit 1



	Discrimination of field frequency	Output	
		Pins 7,8	Pins 9,10
Number of horizontal scanning lines per field (Number of horizontal pulses)	240 to 287	off	on
	288 to 340	on	off
Forced select SW	GND	off	on
	+B	on	off

Sample Application Circuit 2: Using dedicated clock (LA7808)



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of **June, 1996**. Specifications and information herein are subject to change without notice.