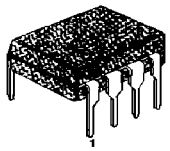
VIDEO SWITCHING CIRCUIT FOR TV

This integrated circuit provides video switching between the peri TV plug and video section in the TV sets.

FEATURE

- 1 Video output 75Ω-1V_{P-P} no switched.
- 1 switched video output 2V_{P-P}.
- Video cross talk: 50dB typical
- Short circuit protection of inputs and outputs
- Clamped video input

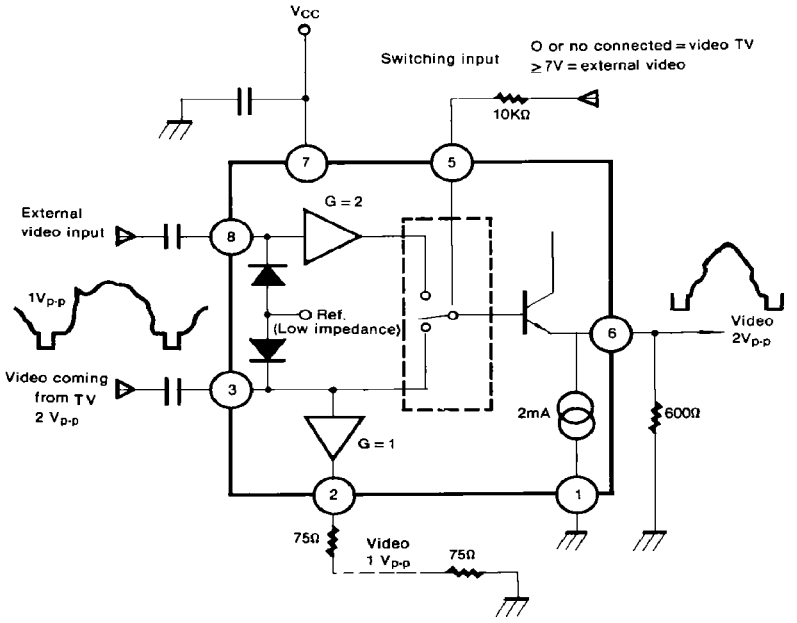
8-DIP-300



ORDERING INFORMATION

Device	Package	Operating Temperature
KA2186	8-DIP-300	-10℃~+70℃

TYPICAL APPLICATION AND TEST CIRCUIT



We advice to protect the 75Ω output through a 75Ω resistor for supply voltage upper than 9V.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	V_{CC}	18	V
Operating Temperature With Load≥150Ω With Load=75Ω	T_{OPR}	 -10~+100 -10~+70	℃
Junction Temperature	T_J	-40~+150	℃
Storage Temperature	T_{STG}	-40~+150	℃
Minimum DC Load Resistor P6 Minimum DC Load Resistor P2		600 75	Ω Ω

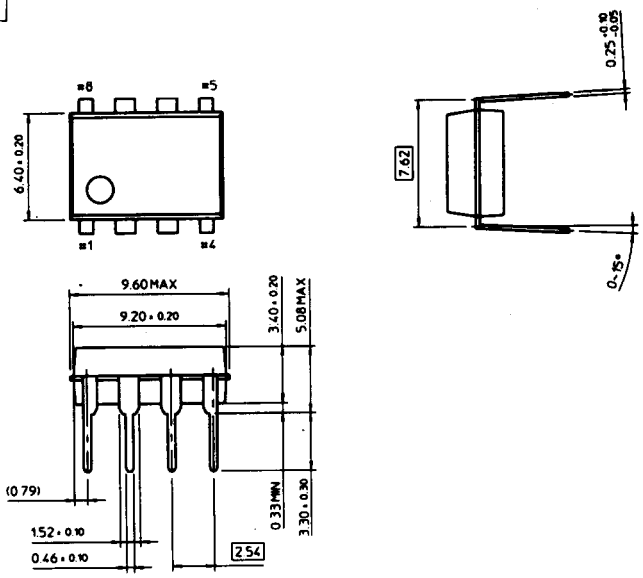
ELECTRICAL CHARACTERISTICS (T_A=25℃, V_{CC}=9V)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Voltage Range	V_{CC}	8	—	14	V
Supply Current (no load on Pin 2 and Pin 6)	I_{CC}	—	13	20	mA
Supply Current (with 75Ω between Pins2-1, with 600Ω beteen Pins6-1)	I_{CCL}	—	43	75	mA
Internal Video Input Swing from Picture F1 (Positive video)	—	—	—	4.5	V_{P-P}
Internal Video Input Impedance (Positive video)	—	50	—	—	kΩ
Internal Video Input Bias Current (Positive video)	—	10	25	40	μA
External Video Input Swing (Positive video)	—	—	—	2	V_{P-P}
External Video Input Impedance (Positive video)	—	50	—	—	kΩ
Switched Video Output Swing	—	—	—	4.5	V_{P-P}
Switched Video DC Output Voltage (Sync. pulse level, note 1) (600Ω)	—	1.7	2	2.4	V
Switched Video Band Width (-1dB)	—	6	—	—	MHz
Switched Video Output Gain Pin 6-Pin 8 (gain with 600Ω load) Pin 6-Pin 3 (gain with 600Ω load)	—	 +4 -1	 +5 -0.5	 +6 0	dB
External Video Output Swing (with 75Ω loade)	—	—	2	2.2	V
External Video DC Output Voltage (Sync. pulse level, note 1) (75Ω)	—	1.7	2	2.4	V
External Video Output Gain (Pin 2-Pin 3 gain with 75Ω load)	—	-1.8	-1	-0.4	dB
Switching input Unactive Low Level or Unconnectec Pin (TV receiving)	—	0	—	3	V
Switching Input Active Level (ext. receiving)	—	7	—	V_{CC}	V
Video Rejection Between Two Inputs 0 to 5Mhz 1KHz	 — —	 — -50	 -50 —	 — —	dB
Differential Group Delay	—	—	15	—	ns
Linearity Distortion Luma (test line 17) Chroma (test line 331) Intermodulation Luma-Chroma (test line 331)		 — — —	 2 2 5	 — — —	%
Supply Voltage Rejection (1KHz)	—	40	50	—	dB

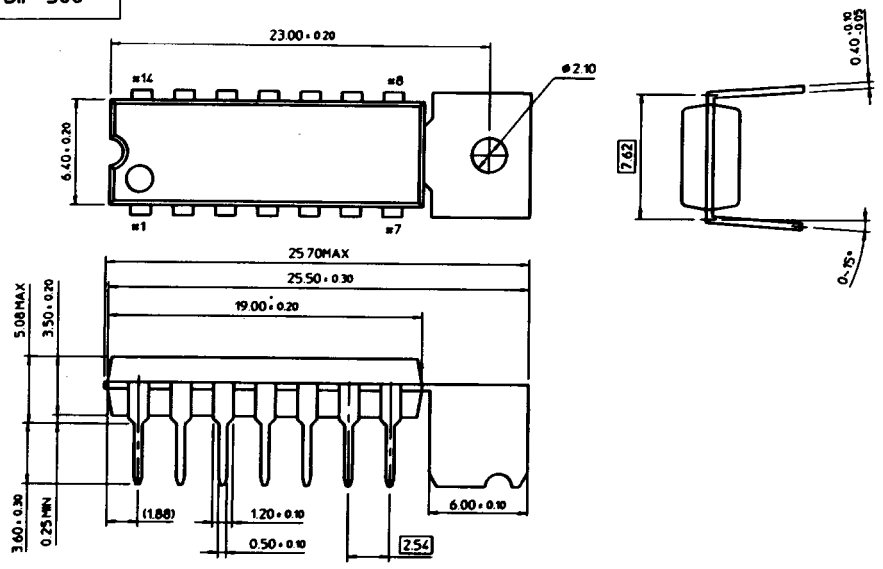
Note 1 : Use a video signal with a synchro pulse in order to make the clamp work in a correct way (75Ω to the ground and 10μF in serie).

Dimensions in Milimeters

8-DIP-300



14-DIP-300



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