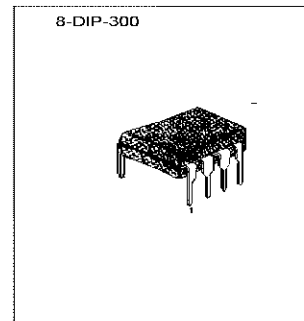


VIDEO SWITCHING CIRCUIT FOR TV

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

FEATURE

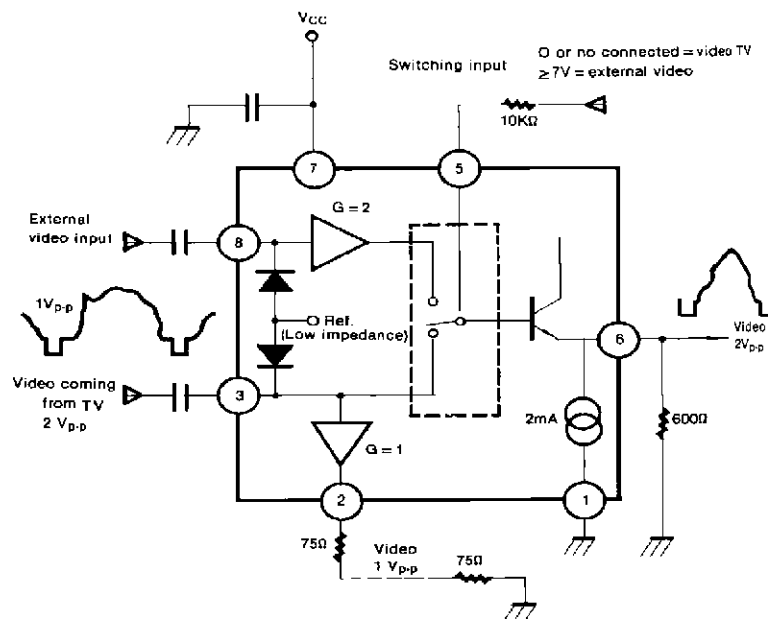
- 1 Video output 75Ω - 1V_{p-p} no switched.
- 1 switched video output 2V_{p-p}.
- Video cross talk: 50dB typical
- Short circuit protection of inputs and outputs
- Clamped video input



ORDERING INFORMATION

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

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 $\geq 150\Omega$ With Load = 75Ω	T_{OPR}	-10~+100 -10~+70	$^{\circ}C$
Junction Temperature	T_J	-40~+150	$^{\circ}C$
Storage Temperature	T_{STG}	-40~+150	$^{\circ}C$
Minimum DC Load Resistor P6		600	Ω
Minimum DC Load Resistor P2		75	Ω

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}C, V_{CC}=9V$)

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 between Pins6-1)	I_{CCL}	—	43	75	mA
Internal Video Input Swing from Picture F1 (Positive video)	—	—	—	4.5	V_{PP}
Internal Video Input Impedance (Positive video)	—	50	—	—	$k\Omega$
Internal Video Input Bias Current (Positive video)	—	10	25	40	μA
External Video Input Swing (Positive video)	—	—	—	2	V_{PP}
External Video Input Impedance (Positive video)	—	50	—	—	$k\Omega$
Switched Video Output Swing	—	—	—	4.5	V_{PP}
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 load)	—	—	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 Unconnected 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 $10\mu F$ in serie).

Dimensions in Millimeters

