

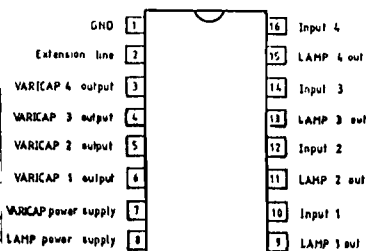
ANALOGUE INTEGRATED CIRCUITS

RADIO / TV



1-OF-4 CHANNELS , EXPANDABLE TOUCH SELECTORS

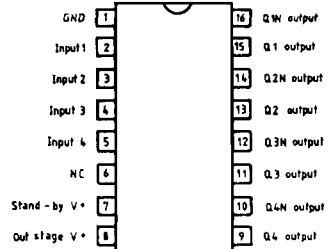
SAS 560S Features : Extended selectors with 8 or more cells can be provided using one SAS 560S and one or more SAS 570S ICs, having pins no.2 connected together.
 Operating temperature : -25...+70°C
 VARICAP supply voltage (pin 7) : 11 ... 35 V
 LAMP supply voltage (pin 8) : 5 ... 25 V
 Input sensitivity ("touch" current) : max. 300 nA
 LAMP output current : max. 55 mA
 VARICAP output current : max. 1.5 mA



PACKAGE MP-117 / TOP VIEW

4 INDEPENDENT CHANNELS TOUCH SELECTOR

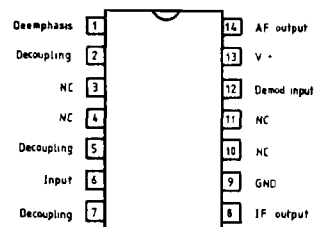
SAS 6804 Features : Each channel includes a T flip-flop with POWER-ON reset and two complem. outputs.
 Operating temperature : -25...+70°C
 STAND-BY supply voltage (pin 7) : 5 ... 18 V
 DRIVERS supply voltage (pin 8) : 10 ... 30 V
 STAND-BY supply current (V₇=12V) : typ. 13 mA
 Input sensitivity ("touch" current) : max. 400 nA
 Output saturation voltage (I_O=30mA) : max. 2.4 V
 Output leakage current (V_O=0V) : max. 50 uA



PACKAGE MP-117 / TOP VIEW

IF AMPLIFIER LIMITER AND FM DETECTOR

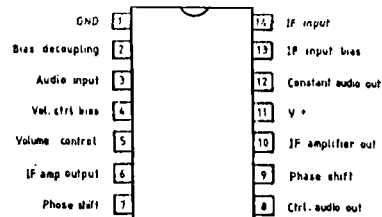
TAA 661 Features :
 Operating temperature : 0 ... +70°C
 Supply voltage : 6 ... 15 V
 Supply current (V=12V) : max. 30 mA
 AF output voltage (v_i=10mV) : min. 700 mV
 Input threshold RMS voltage (-3dB) : max. 250 uV
 AM rejection (v_i=10mV; m=30%) : max. 40 dB
 Total harmonic distortion (v_i=10mV) : max. 2 %
 Output resistance : typ. 0.1 k Ω



PACKAGE TO-116 / TOP VIEW

IF AMPLIFIER AND FM DETECTORS

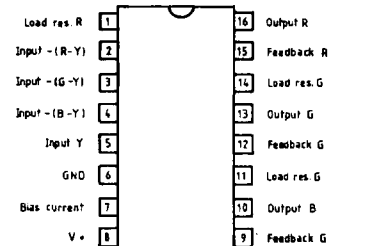
TBA 120T Features : TBA 120T uses ceramic filters, while TBA 120U is made for inductive tuning.
TBA 120U Operating temperature : -25...+70°C
 Supply voltage : max. 18 V
 Supply current (V=12V) : 9 ... 18 mA
 Operating frequency range : 0 ... 12 MHz
 Volume control : min. 70 dB
 AM rejection : min. 50 dB
 Sensitivity (-3dB) : max. 80uV_{ef}



PACKAGE TO-116 / TOP VIEW

RGB MATRIX PREAMPLIFIER FOR COLOUR TV

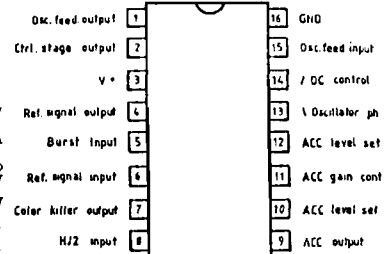
TBA 530 Features :
 Operating temperature : -25...+70°C
 Supply voltage : max. 13.2 V
 Supply current (V=12V) : typ. 30 mA
 Bias current (pin 7) : typ. 2.5 mA
 Current through load resistance : max. 10 mA
 Output current : max. 50 mA
 Gain ratio lumin./colour amp. (f=500kHz) 30 ... 110 %
 Luminance/colour bandwidth (f=6MHz) : typ. -3 dB



PACKAGE MP-117 / TOP VIEW

PAL REFERENCE COMBINATION FOR COLOUR TV

TBA 540 Features :
 Operating temperature : -25...+70°C
 Supply voltage : max. 13.2 V
 Supply current (V=12V) : typ. 33 mA
 R-Y reference voltage : typ. 1.5V_{ref}
 Colour killer voltage (colour ON) : typ. 12 V
 Colour killer voltage (colour OFF) : max. 250 mV
 Voltage gain G₁₅₋₁ : typ. 4.7 -
 Voltage gain G₁₅₋₂ (pins 13/14 shorted) typ. 1.3 -



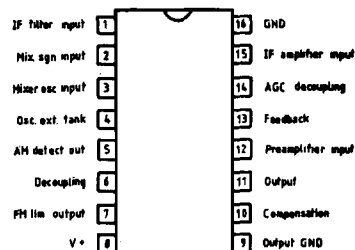
PACKAGE MP-117 / TOP VIEW



AM-FM RADIO RECEIVER

TBA 570A

Features :
 Operating temperature : -25...+70°C
 Supply voltage : 3 ... 18 V
 Supply current (V=5.3V , unloaded IC) : max. 15 mA
 AM signal to noise ratio ($v_{in}=36\mu V$) : min. 26 dB
 FM signal to noise ratio ($v_{in}=5mV$) : min. 55 dB
 AM AGC range : min. 60 dB
 Output voltage (AM, $v_{in}=100\mu V$, m=30%) : min. 20 mV
 FM IF sensitivity : min. 140 μV

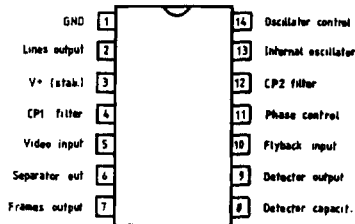


PACKAGE MP-117 / TOP VIEW

TV SIGNAL PROCESSING CIRCUITS

TBA 950/1

Features :
 Operating temperature : 0 ... +60°C
 Supply voltage (through ext. resistor): 12 ... 18 V
 Stabilised voltage (pin 3 , I=40mA) : 8.9 /10.5 V
 Composite video signal amplitude : 1 ... 6 V_{pp}
 Free frequency oscilation : 15.825 kHz
 Frequency pull-in range : min. ± 500 Hz
 Output pulse duration : TBA 950/1 22 / 26 μs
 TBA 950/2 24 /28.5 μs

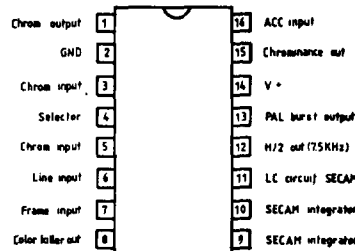


PACKAGE TO-116 / TOP VIEW

CHROMINANCE AMPLIFIER FOR PAL/SECAM DECODERS

TCA 640

Features :
 Operating temperature : -25...+70°C
 Supply voltage : max. 13.2 V
 Supply current (V=12V) : typ. 37 mA
 Chrominance output signal (PAL mode) : 425/575mV_{pp}
 Chrominance output signal (SECAM mode): 1.8/2.3 V_{pp}
 Burst output (PAL mode) : typ. 1 V_{pp}
 Burst rejection : min. 40 dB
 Square-wave output voltage : 2.5/3.5 V_{pp}

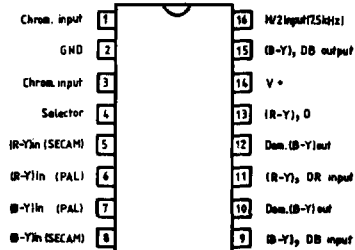


PACKAGE MP-117 / TOP VIEW

CHROMINANCE DEMODULATOR FOR PAL/SECAM DECODERS

TCA 650

Features :
 Operating temperature : -25...+70°C
 Supply voltage : max. 13.2 V
 Supply current (V=12V) : typ. 36 mA
 R-Y chrominance gain (PAL mode) : typ. 2.8 -
 B-Y chrominance gain (PAL mode) : typ. 3.1 -
 Gain difference from line to line : ... max. 5 %
 Output signals amplitude DR, DB (SECAM) 1.6 2.2 V
 Square-wave input signal : 2.55/3.55V_{pp}

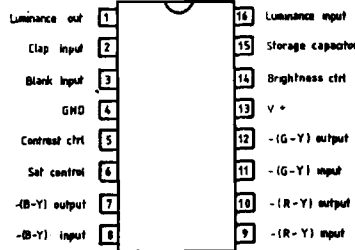


PACKAGE MP-117 / TOP VIEW

CONTRAST, SATURATION & BRIGHTNESS CONTROL CIRCUIT

TCA 660

Features:
 Operating temperature : -25...+70°C
 Supply voltage : max. 13.2 V
 Supply current (V=12V) : typ. 25 mA
 Black level volt. at brightness setting 2.2 / 5.2 V
 Bandwidth of luminance signal (f=6MHz): min. -3 dB
 (R-Y) output signal : typ. 1.25V_{pp}
 (B-Y) output signal : typ. 1.60V_{pp}
 (Y) luminance output signal : typ. 3 V_{pp}



PACKAGE MP-117 / TOP VIEW

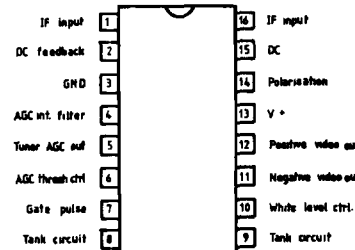
TV VIDEO SIGNAL IF AMPLIFIER

TDA 440N

Features : TDA 440N drives NPN type RF amplifiers, while TDA 440P is used for PNP RF amps.

TDA 440P

Operating temperature : -25...+70°C
 Supply voltage : 10 ... 15 V
 White level control voltage : -1 ... 3 V
 DC video output current : max. 5 mA
 Positive video DC out level (V₁₁=5.5V): typ. 5.6 V
 Negative video DC out level : 4.8 / 6.4 V
 Negative video output current : typ. 3.2 mA



PACKAGE MP-117 / TOP VIEW

ANALOGUE INTEGRATED CIRCUITS

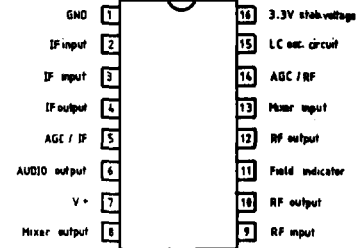
RADIO / TV



HI-FI AM RADIO DEMODULATOR AMPLIFIER

TDA 1046 Features :

- Operating temperature : -25...+70°C
- Supply voltage : max. 18 V
- Supply current (V=10V) : 15 ... 25 mA
- HF signal frequency : 0 ... 30 MHz
- IF signal frequency : 0.2 / 1 MHz
- RF amplifier AGC range : min. 40 dB
- Output harmonic distortions (m=30%) : max. 0.6 %
- Noise to signal ratio (m=0...30%) : typ. 53 dB



PACKAGE MP-117 / TOP VIEW

TV VERTICAL DEFLECTION SYSTEM

TDA 1170S Features (Preliminary Data) :

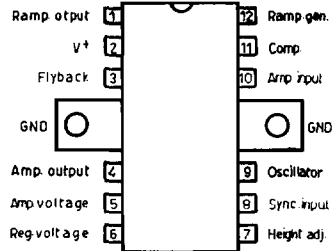
- Operating temperature : -25...+70°C
- Supply voltage (pin 2) : 10 ... 36 V
- Flyback peak voltage (pins 4, 5) : max. 60 V
- Power amplifier input voltage : -0.5 / +10 V
- Output peak current at f=50Hz, t_d10us : max. 2.5 A

TDA 1170N

- RF amplifier AGC range : min. 40 dB

TDA 1170D

- Ramp generator non-linearity : max. 1 %
- Power dissipation at T_{amb}=90°C : max. 5 W



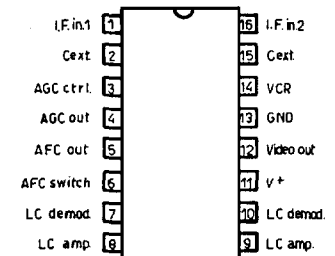
PACKAGE CB-109 / TOP VIEW

TELEVISION I.F. AMPLIFIER AND DEMODULATORS

\$ TDA 3540 Features : TDA 3540 drives NPN type tuners , while TDA 3541 is used for PNP-based tuners.

\$ TDA 3541

- Operating temperature : -25...+70°C
- Supply voltage : typ. 12 V
- I.F. input sensitivity (r.m.s. value) : typ. 70 uV
- Video output (white at 10% of top sync) : typ. 2.7 V_{pp}
- I.F. voltage gain control range : typ. 65 dB
- Signal-to-noise ratio at V_i=10mV : typ. 57 dB
- A.F.C. output voltage swing (Δf=70kHz) : typ. 10 V

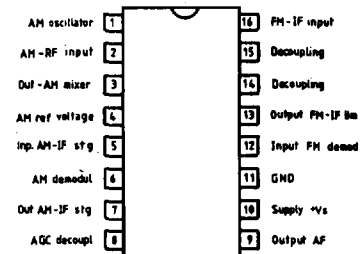


PACKAGE MP-117 / TOP VIEW

LOW VOLTAGE AM-FM RADIO RECEIVER

TDA 7220 Features (Preliminary data) :

- High sensitivity and low noise
- Simple DC switching AM / FM
- AM frequency up to 30 MHz
- Very low tweet
- Operating temperature : -25 / +85°C
- Storage and junction temperature : -55 / +150°C
- Total power dissipation at T_{amb} : max. 400 mW
- Operating supply voltage : 1.5 / 6.5 V



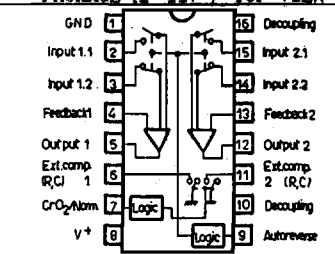
PACKAGE MP-117 / TOP VIEW

STEREO LOW-VOLTAGE CASSETTE PREAMPLIFIERS

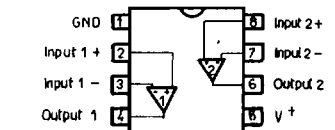
TDA 8105 Features :

- Operating temperature : -25...+70°C
- Supply voltage : 1.8 ... 6 V
- Supply current : typ. 1.1 mA
- Voltage gain (closed loop) : typ. 40 dB
- Total equivalent RMS noise input : typ. 1.5 uV

TDA 8105N



TDA 8105
PACKAGE MP-117 / TOP VIEW



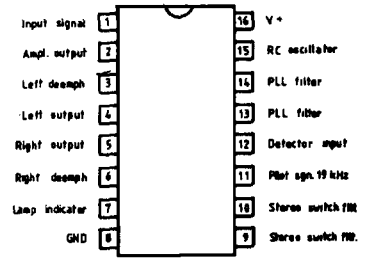
TDA 8105N
PACKAGE MP-48 / TOP VIEW



FM STEREO DECODER

BA 758

Features :
 Operating temperature : 0 ... +70°C
 Supply voltage : max. 16 V
 Supply current (V=12V, Lamp OFF) : max. 35 mA
 Channel separation : min. 30 dB
 Channel balance : max. 1.5 dB
 Total harmonic distortion : typ. 0.4 %
 Capture range : 2 ... 6 % f_0
 38 kHz and 19 kHz rejection ratio : ... min. 20 dB

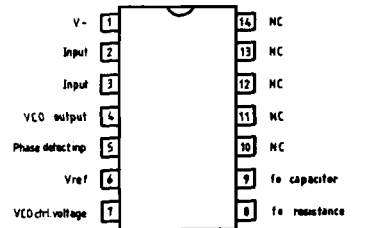


PACKAGE MP-117 / TOP VIEW

PHASE LOCKED LOOP CIRCUIT

BE 565

Features :
 Operating temperature : 0 ... +70°C
 Supply voltage : max. ± 12 V
 Supply current (V=±6V) : max. 12.5mA
 Triangle wave output voltage (fo=10kHz) min. 2 V_{pp}
 Square wave output voltage (fo=10kHz) : min. 4.7V_{pp}
 VCO operating frequency (Co=2.7pF) : .. 0...500 kHz
 VCO output impedance : typ. 5 k Ω
 Demodulated output voltage (fo=10±1kHz) min. 200mV_{pp}

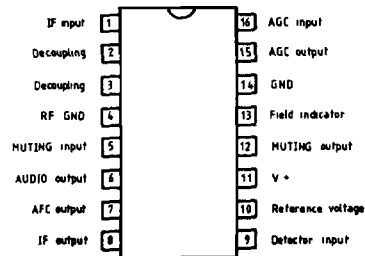


PACKAGE TO-116 / TOP VIEW

HI-FI FM IF RADIO SYSTEM

BM 3189

Features :
 Operating temperature : -25 / +70°C
 Supply voltage : 9 ... 16 V
 Supply current (V=12V) : 20 ... 44 mA
 Input limiting voltage (-3dB point) : max. 25 μ V
 Recovered AF voltage (RMS) : 325/625mV_{eff}
 Single tuned THD : max. 1 %
 Double tuned THD : typ. 0.1 %
 Signal plus noise-to-noise ratio : min. 65 dB

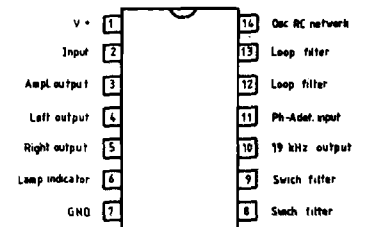


PACKAGE MP-117 / TOP VIEW

BATTERY SUPPLIED STEREO DECODERS

BMC 1309

Features :
 Operating temperature : -25 / +70°C
 Storage temperature : -25 / +125°C
 Supply voltage BMC 1309A : 4.5 ... 16 V
 BMC 1309 : 6 ... 16 V
 Channel balance : max. 1 dB
 Mono-aural gain : typ. 0.9 dB
 Channel separation : typ. 40 dB
 Capture range : min. ± 7 %



PACKAGE TO-116 / TOP VIEW