

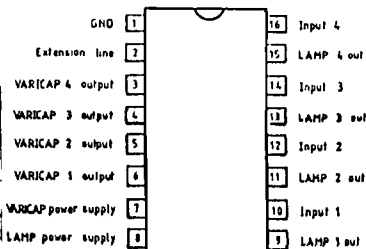
ANALOGUE INTEGRATED CIRCUITS

RADIO / TV



1-OF-4 CHANNELS , EXPANDABLE TOUCH SELECTORS

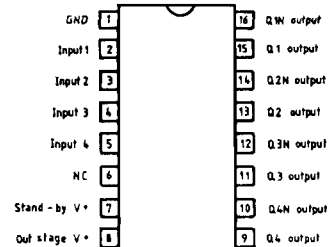
SAS 560S	Features : Extended selectors with 8 or more cells can be provided using one SAS 560S and one or more SAS 570S ICs, having pins no.2 connected together.
SAS 570S	Operating temperature : -25...+70°C VARICAP supply voltage (pin 7) : 11 ... 35 V LAMP supply voltage (pin 8) : 5 ... 25 V Input sensitivity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

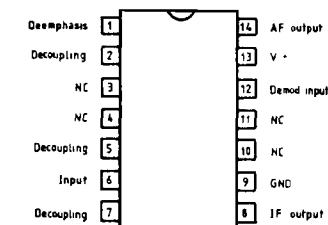
SAS 6804	Features : Each channel includes a T flip-flop with POWER-ON reset and two complem. outputs. Operating temperature : -25...+70°C STAND-BY supply voltage (pin 7) : 5 ... 18 V DRIVERS supply voltage (pin 8) : 10 ... 30 V STAND-BY supply current ($V_7=12V$) : typ. 13 mA Input sensitivity ("touch" current) : max. 400 nA Output saturation voltage ($I_O=30mA$) : max. 2.4 V Output leakage current ($V_O=0V$) : max. 50 uA
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PACKAGE MP-117 / TOP VIEW

IF AMPLIFIER LIMITER AND FM DETECTOR

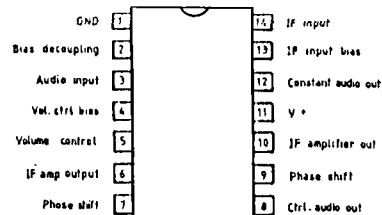
TAA 661	Features : Operating temperature : 0 ... +70°C Supply voltage : 6 ... 15 V Supply current ($V=12V$) : max. 30 mA AF output voltage ($v_i=10mV$) : min. 700 mV Input threshold RMS voltage (-3dB) : max. 250 uV AM rejection ($v_i=10mV$; $m=30\%$) : max. 40 dB Total harmonic distortion ($v_i=10mV$) : max. 2 % Output resistance : typ. 0.1 k Ω
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PACKAGE TO-116 / TOP VIEW

IF AMPLIFIER AND FM DETECTORS

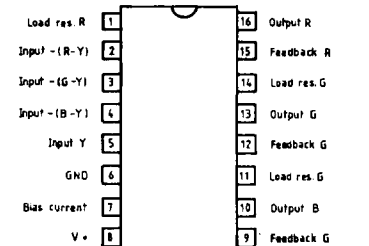
TBA 120T	Features : TBA 120T uses ceramic filters, while TBA 120U is made for inductive tuning.
TBA 120U	Operating temperature : -25...+70°C Supply voltage : max. 18 V Supply current ($V=12V$) : 9 ... 18 mA Operating frequency range : 0 ... 12 MHz Volume control : min. 70 dB AM rejection : min. 50 dB Sensitivity (-3dB) : max. 60uV _{ef}



PACKAGE TO-116 / TOP VIEW

RGB MATRIX PREAMPLIFIER FOR COLOUR TV

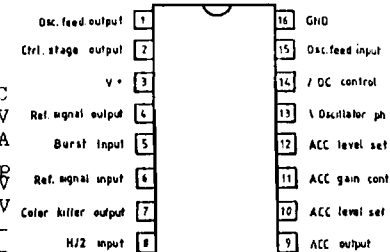
TBA 530	Features : Operating temperature : -25...+70°C Supply voltage : max. 13.2 V Supply current ($V=12V$) : typ. 30 mA Bias current (pin 7) : typ. 2.5 mA Current through load resistance : max. 10 mA Output current : max. 50 mA Gain ratio lumin./colour amp. ($f=500kHz$) : 30 ... 110 % Luminance/colour bandwidth ($f=6MHz$) : typ. -3 dB
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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 G_{15-1} : typ. 4.7 - Voltage gain G_{15-2} (pins 13/14 shorted) : typ. 1.3 -
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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

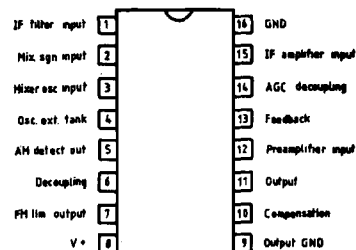
AM signal to noise ratio ($v_{in}=36\mu V$) : min. 26 dB

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

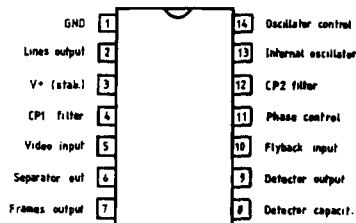
Stabilised voltage (pin 3, I=40mA) : 8.9 / 10.5 V

Composite video signal amplitude : 1 ... 6 V_{pp}

Free frequency oscillation : 15.625 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

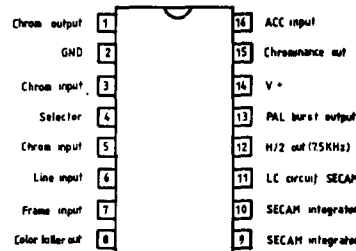
Chrominance output signal (PAL mode) : 425/575mV_{pp}

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

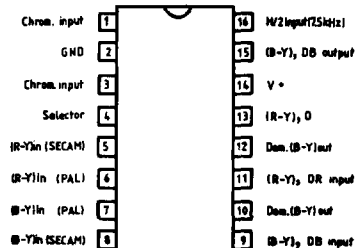
R-Y chrominance gain (PAL mode) : typ. 2.8 -

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

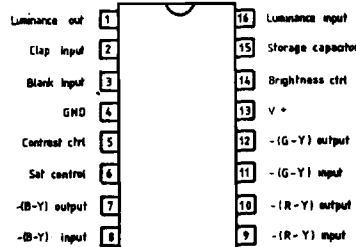
Black level volt. at brightness setting 2.2 / 5.2 V

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

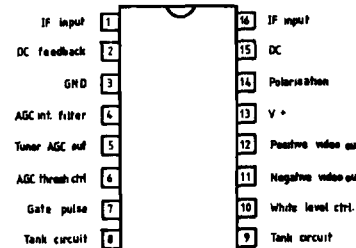
White level control voltage : -1 ... 3 V

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

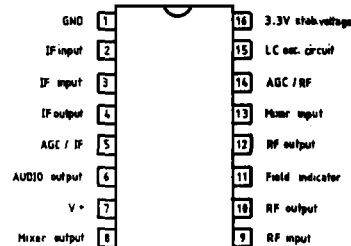


HI-FI AM RADIO DEMODULATOR AMPLIFIER

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

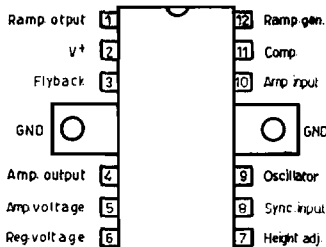
TDA 1170S

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 _d 10us :	max. 2.5 A
RF amplifier AGC range :	min. 40 dB
Ramp generator non-linearity :	max. 1 %
Power dissipation at T _{amb} =90°C :	max. 5 W

TDA 1170N

TDA 1170D



PACKAGE CB-109 / TOP VIEW

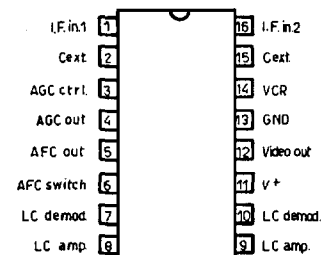
TELEVISION I.F. AMPLIFIER AND DEMODULATORS

\$ 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

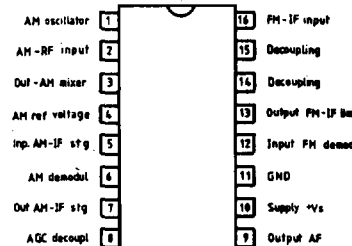
LOW VOLTAGE AM-FM RADIO RECEIVER

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

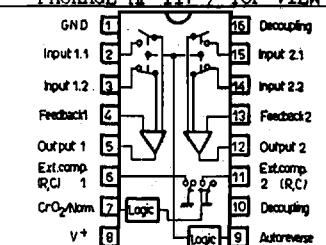
STEREO LOW-VOLTAGE CASSETTE PREAMPLIFIERS

TDA 8105

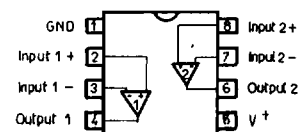
Features :

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

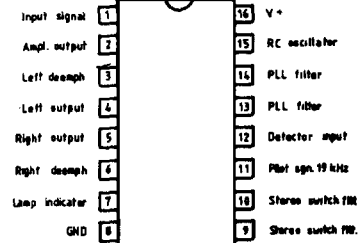


FM STEREO DECODER

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



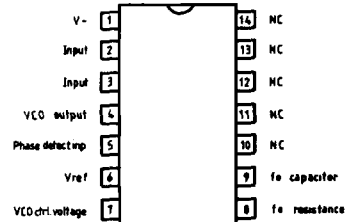
PACKAGE MP-117 / TOP VIEW

PHASE LOCKED LOOP CIRCUIT

BE 565

Features :

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



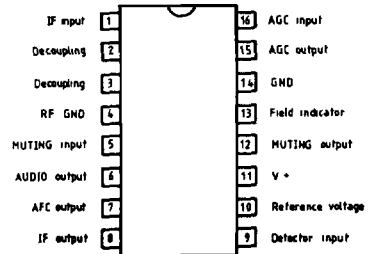
PACKAGE TO-116 / TOP VIEW

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) :	325/625 mV _{eff}
Single tuned THD :	max. 1 %
Double tuned THD :	typ. 0.1 %
Signal plus noise-to-noise ratio :	min. 65 dB



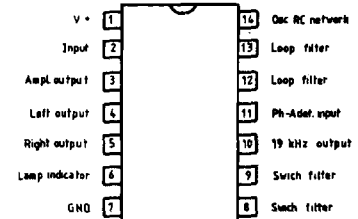
PACKAGE MP-117 / TOP VIEW

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