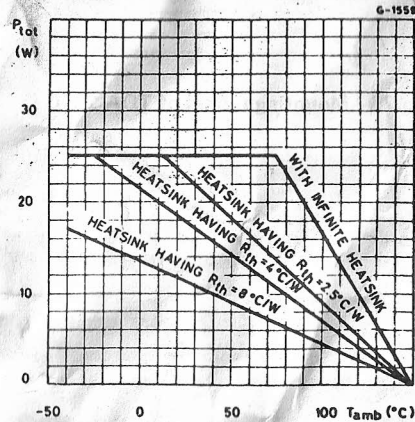


# TDA 2020

The maximum allowable power dissipation depends upon the size of the external heatsink (i. e. its thermal resistance); fig. 28 shows this dissipable power as a function of ambient temperature for different thermal resistance.

Fig. 28 - Maximum allowable power dissipation vs. ambient temperature



For a more detailed description of the TDA 2020 and related performance refer to SGS-ATES Application Note n. 130.

# LINEAR INTEGRATED CIRCUIT

# TDA 2020

## PRELIMINARY DATA

### 20 W Hi-Fi AUDIO POWER AMPLIFIER WITH SHORT CIRCUIT PROTECTION AND THERMAL SHUT-DOWN

The TDA 2020 is a monolithic integrated operational amplifier in a 14-lead quad in-line\* plastic package, intended for use as a low frequency class B power amplifier. Typically it provides 20 W output power ( $d = 1\%$ ) at  $\pm 18 V/4 \Omega$ ; the guaranteed output power at  $\pm 17 V/4 \Omega$  is 15 W (DIN norm 45500). The TDA 2020 provides high output current (up to 3.5 A) and has very low harmonic and cross-over distortion. Further, the device incorporates an original (and patented) short circuit protection system, comprising an arrangement for automatically limiting the dissipated power so as to keep the working point of the output transistors within their safe operating area. A conventional thermal shut-down system is also included. The TDA 2020 is pin to pin equivalent to TDA 2010.

\* (or, optionally, dual in-line)

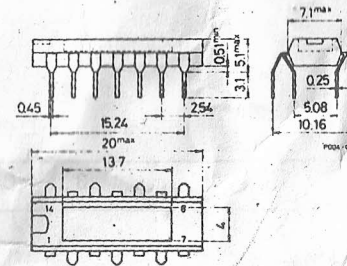
### ABSOLUTE MAXIMUM RATINGS

$V_s$	Supply voltage	$\pm 22$	V
$V_i$	Input voltage	$V_s$	V
$V_{i,d}$	Differential input voltage	$\pm 15$	V
$I_o$	Output peak current (internally limited)	3.5	A
$P_{tot}$	Power dissipation at $T_{case} \leq 75^\circ C$	25	W
$T_{stg}, T_j$	Storage and junction temperature	-40 to 150	$^\circ C$

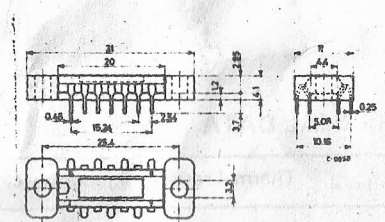
**ORDERING NUMBERS:** TDA 2020 A82 dual in-line plastic package  
 TDA 2020 A92 quad in-line plastic package  
 TDA 2020 AC2 dual in-line plastic package with spacer  
 TDA 2020 AD2 quad in-line plastic package with spacer

### MECHANICAL DATA

Dimensions in mm



TDA 2020 A92



TDA 2020 AD2

