

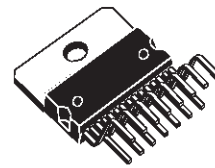


## 10W+10W+10W/15W TRIPLE AMPLIFIER

PRODUCT PREVIEW

- 10+10W ( $R_L = 8\Omega$ ) + 15W ( $R_L = 6\Omega$ )  
or 10+10+10W ( $R_L = 8\Omega$ )  
OUTPUT POWER @THD = 10%  $V_{CC} = 29V$
- INDEPENDENT MUTE FOR CENTER CHANNEL AND MAIN CHANNELS
- NO TURN-ON TURN-OFF POP NOISE
- NO BOUCHEROT CELL
- SINGLE SUPPLY RANGING UP TO 35V
- SHORT CIRCUIT PROTECTION
- THERMAL OVERLOAD PROTECTION
- INTERNALLY FIXED GAIN
- SOFT CLIPPING
- MULTIWATT 15 PACKAGE

### MULTIPOWER BI50II TECHNOLOGY



Multiwatt15

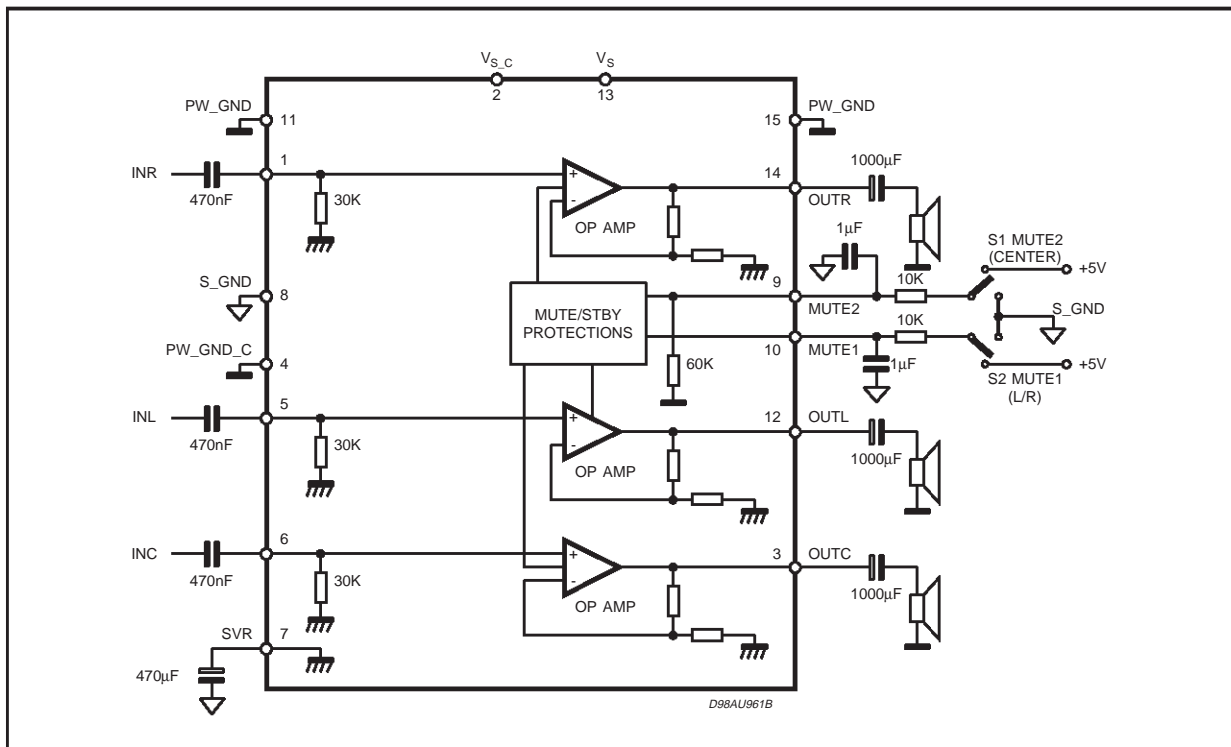
ORDERING NUMBER: TDA7497

### DESCRIPTION

The TDA7497 is a triple 10+10+10W/15W class AB power amplifier assembled in the @ Multiwatt 15 package, specially designed for high quality sound, TV applications.

Features of the TDA7497 include mute functions, independently controller for main and center channels.

### BLOCK AND APPLICATION DIAGRAM

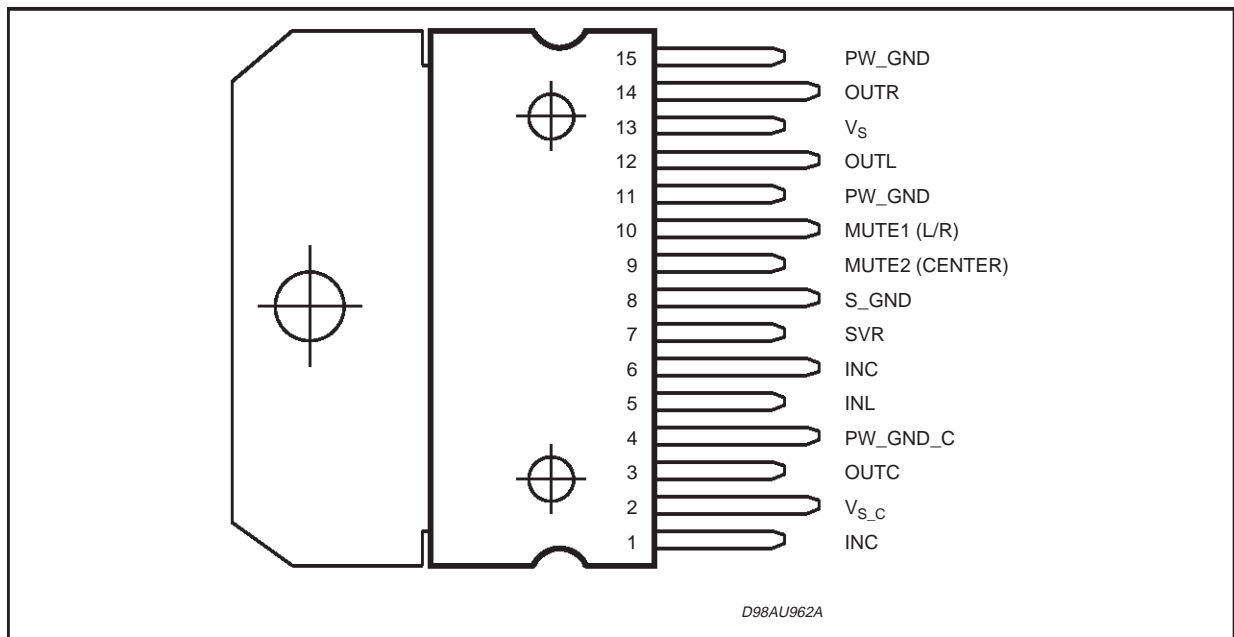


**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
V <sub>S</sub>	DC Supply Voltage	40	V
P <sub>tot</sub>	Total Power Dissipation (T <sub>amb</sub> = 70°C)	20	W
T <sub>amb</sub>	Ambient Operating Temperature (1)	0 to 70	°C
T <sub>stg</sub> , T <sub>j</sub>	Storage and Junction Temperature	-40 to 150	°C

(1) Operation between -20 to 85 °C guaranteed by correlation with 0 to 70°C.

**PIN CONNECTION (Top view)**



**THERMAL DATA**

Symbol	Parameter	Value	Unit
R <sub>th j-case</sub>	Thermal Resistance Junction-case	Typ. = 1.3    Max. = 1.9	°C/W
R <sub>th j-amb</sub>	Thermal Resistance Junction-ambient	max 35	°C/W

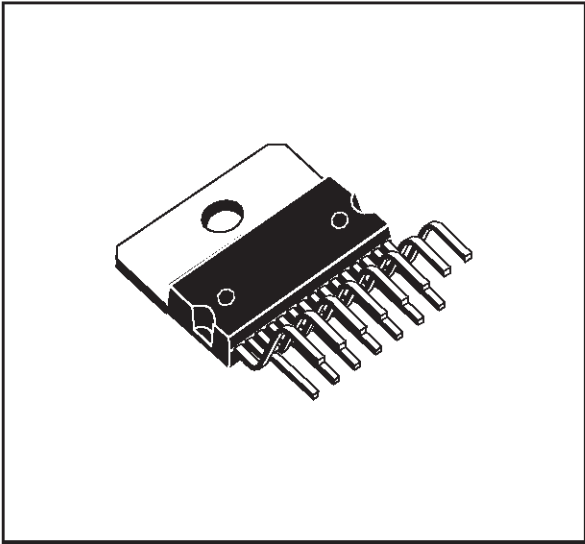
**ELECTRICAL CHARACTERISTICS** (Refer to the test circuit  $V_S = 28V$ ;  $R_L = 8\Omega$ ,  $R_g = 50\Omega$ ,  $T_{amb} = 25^\circ C$ )

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_S$	Supply Voltage Range		11		35	V
$I_q$	Total Quiescent Current			100		mA
$V_o$	Quiescent Output Voltage		12.5	14	15.5	V
$P_{O\_L/R}$	Output Power Left / Right Channels	THD = 10%; $R_L = 8\Omega$ ; $V_S = 28V$	10	12		W
		THD = 1%; $R_L = 8\Omega$ ; $V_S = 28V$	7.8	9.3		W
		THD = 10%; $R_L = 4\Omega$ ; $V_S = 20V$	7	8		W
		THD = 1%; $R_L = 4\Omega$ ; $V_S = 20V$	5	6		W
		THD = 10%; $R_L = 8\Omega$ ; $V_S = 18V$	3.5	3.8		W
		THD = 1%; $R_L = 8\Omega$ ; $V_S = 18V$	2.2	2.9		W
$P_{O\_C}$	Output Power Center Channel	THD = 10%; $R_L = 6\Omega$ ; $V_S = 28V$	15	17		W
		THD = 1%; $R_L = 6\Omega$ ; $V_S = 28V$	11.7	13.3		W
THD	Total Harmonic Distortion	$P_O = 1W$ ; $f = 1KHz$ ;			0.4	%
$I_{peak\ L/R}$	Output Peak Current	(internally limited)	1.7	2.4		A
$I_{peak\ C}$	Output Peak Current Central Channel	(internally limited)	2	2.8		A
$G_V$	Closed Loop Gain		29	30	31	dB
BW				0.6		MHz
$e_N$	Total Output Noise	$f = 20Hz$ to $22KHz$		60	150	$\mu V$
SR	Slew Rate		5	8		V/ $\mu s$
$R_i$	Input Resistance		22.5	30		K $\Omega$
SVR	Supply Voltage Rejection	$f = 1kHz$ $C_{SVR} = 470\mu F$ ; $V_{RIP} = 1V_{rms}$	35	39		dB
$T_M$	Thermal Muting			150		$^\circ C$
$T_s$	Thermal Shut-down			160		$^\circ C$
<b>MUTE STAND-BY &amp; INPUT SELECTION FUNCTIONS</b>						
$V_{MUTE1}$	Mute Threshold (L/R)		2.3	2.5	2.7	V
$V_{MUTE2}$	Mute Threshold (Center only)		2.3	2.5	2.7	V
AMUTE	Mute Attenuation		50	65		dB
$I_{muteBIAS}$	Mute bias current Mute1/Mute2	Mute		1	5	$\mu A$
		Play		0.2	2	$\mu A$

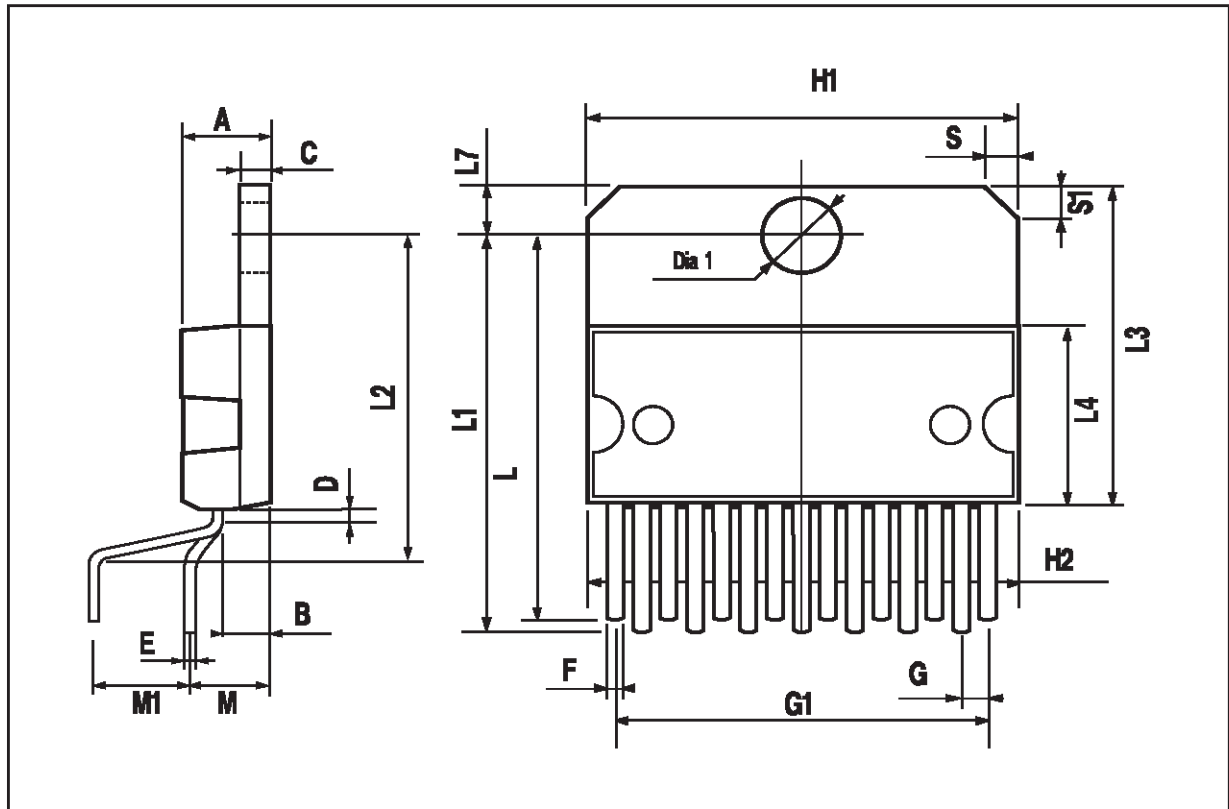
**TDA7497**

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			5			0.197
B			2.65			0.104
C			1.6			0.063
D		1			0.039	
E	0.49		0.55	0.019		0.022
F	0.66		0.75	0.026		0.030
G	1.02	1.27	1.52	0.040	0.050	0.060
G1	17.53	17.78	18.03	0.690	0.700	0.710
H1	19.6			0.772		
H2			20.2			0.795
L	21.9	22.2	22.5	0.862	0.874	0.886
L1	21.7	22.1	22.5	0.854	0.870	0.886
L2	17.65		18.1	0.695		0.713
L3	17.25	17.5	17.75	0.679	0.689	0.699
L4	10.3	10.7	10.9	0.406	0.421	0.429
L7	2.65		2.9	0.104		0.114
M	4.25	4.55	4.85	0.167	0.179	0.191
M1	4.63	5.08	5.53	0.182	0.200	0.218
S	1.9		2.6	0.075		0.102
S1	1.9		2.6	0.075		0.102
Dia1	3.65		3.85	0.144		0.152

**OUTLINE AND MECHANICAL DATA**



**Multiwatt15 V**



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