

TDA2030

产品说明书

Specification Revision History:

Version	Date	Description
V1.0	2019/04	New
V1.1	2021/03	Modify Ordering Information
V1.2	2025/02	Modify Ordering Information
V1.3	2025/03	Add application precautions and overall typesetting.

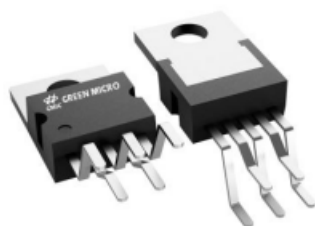
GENERAL DESCRIPTION

The TDA2030 is a monolithic integrated circuit in Pentawatt package, intended for use as a low frequency class AB amplifier. Typically it provides 18W output power($d=0.5\%$) at $\pm 18V$ or $36V$,

The TDA2030 provides high output current 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 appearance of the product

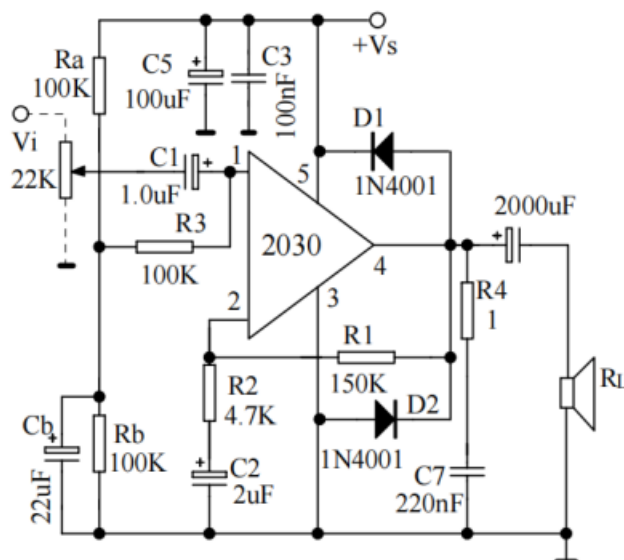


TO-220-5

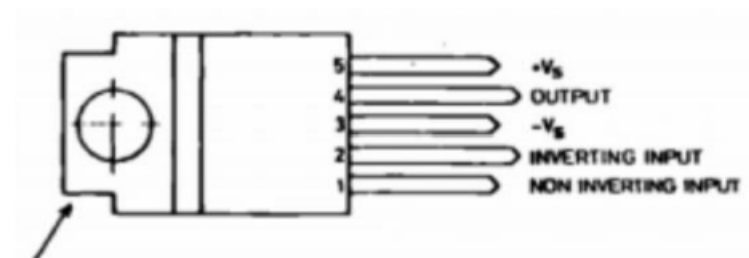
Ordering Information

Product Model	Package Type	Marking	Packing	Packing Qty
TDA2030A(GMIC)	TO-220-5	TDA2030 251	TUBE	1000PCS/BOX
TDA2030(GMIC)	TO-220-5	TDA2030 0251	TUBE	1000PCS/BOX

TYPICAL APPLICATION



PIN CONNECTION



tab connected to pin 3

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

Characteristics	Symbol	Value	Units
Supply Voltage	V_s	± 18	V
Input Voltage	V_i	V_s	V
Differential input Voltage	V_{di}	± 15	V
Peak output Current (Internally limited)	I_o	3.5	A
Power Dissipation at $T_{case}=90^{\circ}\text{C}$	P_{tot}	20	W
Storage Temperature	T_{stg}	$-40\sim+150$	$^{\circ}\text{C}$
Junction Temperature	T_j	$-40\sim+150$	$^{\circ}\text{C}$

THERMAL DATA

Characteristics	Symbol	Value	Units
Thermal Resistance Junction-case Max	$R_{th(j-case)}$	3	C/W

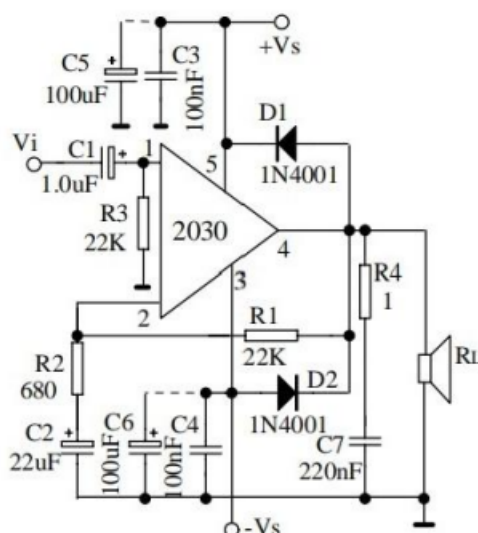
ELECTRICAL CHARACTERISTICS

(Refer to the test circuit, $V_s=\pm 16\text{V}$, $T_a=25^{\circ}\text{C}$, unless otherwise specified)

Characteristics	Test conditions	Symbol	Min	Typ	Max	Unit
Supply Voltage	$V_s=\pm 18\text{V}(V_s=36\text{V})$	V_s	± 6		± 18	V
			12		36	
Quiescent Drain Current		I_d		40	60	mA
Input Bias Current		I_b		0.2	2	μA
Input Offset Voltage		V_{os}		± 2	± 20	mV
Input Offset Current		I_{os}		± 20	± 200	nA

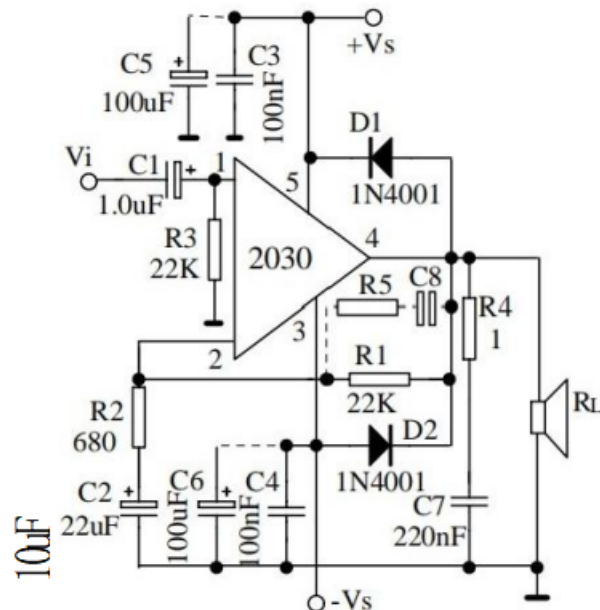
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TEST CIRCUIT

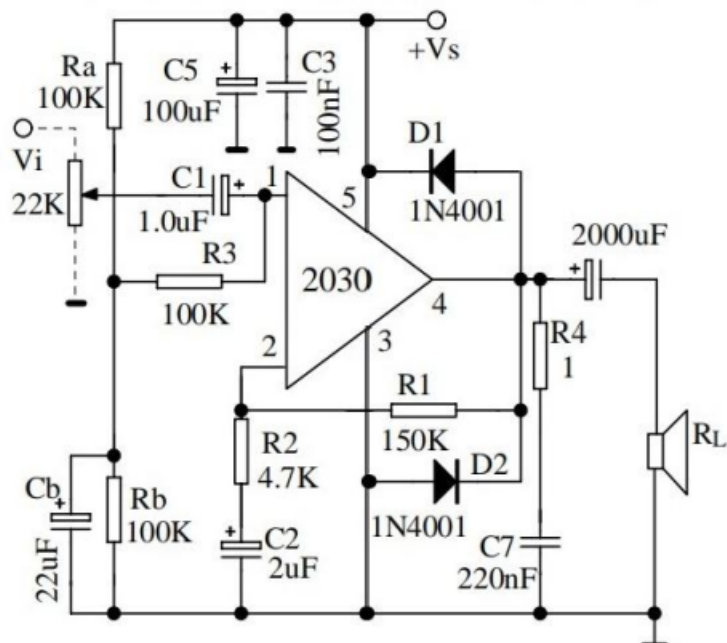


APPLICATION CIRCUIT

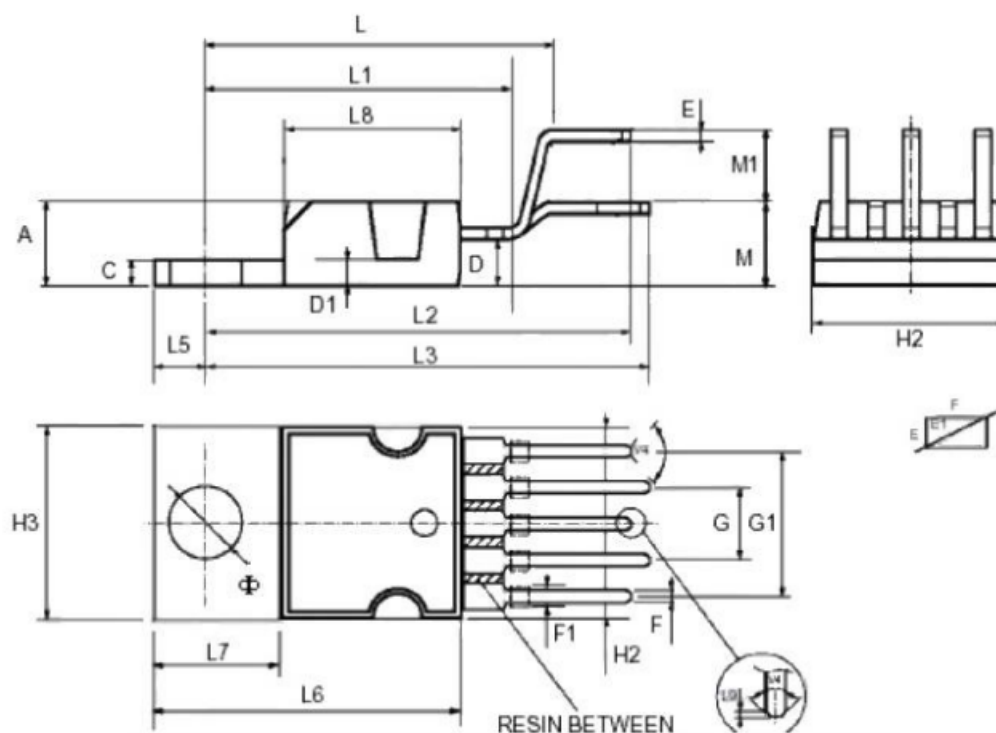
1. Typical amplifier with split power supply



2. Typical amplifier with single power supply



Outline Dimensions

TO-220-5
Unit : mm


Symbol	mm		
	MIN	TYP	MAX
A	4.2		4.8
C	1.2		1.37
D	2.4		2.8
D1	1.2		1.35
E	0.35		0.55
E1	0.76		1.19
F	0.8		1.05
F1	1		1.4
G	3.2	3.4	3.6
G1	6.6	6.8	7
H2	10		10.4
H3	10.05		10.4
L	17.55	17.85	18.15
L1	15.55	15.75	15.95
L2	21.2	21.4	21.6
L3	22.3	22.5	22.7
L5	2.6		3
L6	15.1		15.8
L7	5.6		6.2
L8	9.2		9.4
L9		0.2	
M	4.23	4.5	4.75
M1	3.75	4	4.25
Φ	3.8		3.9
V4	40°(typ)		

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