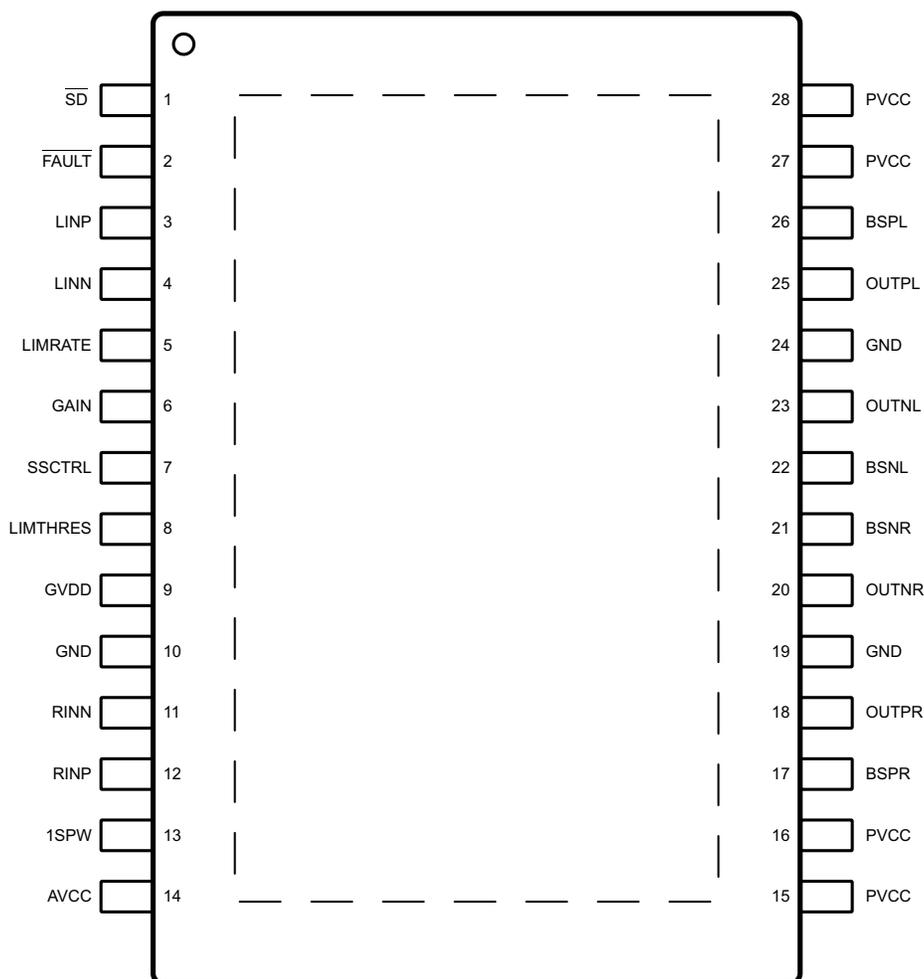


### 5 Device Comparison Table

DEVICE NAME	DESCRIPTION
TPA3113D2	6-W Stereo Class-D Audio Power Amplifier with SpeakerGuard™
TPA3131D2	7W Filter-Free Class-D Stereo Amplifier In Space Saving QFN
TPA3130D2	15W Filter-Free Class D Stereo Amplifier with AM Avoidance
TPA3110D2	15W Filter-Free Class D Stereo Amplifier with SpeakerGuard™

### 6 Pin Configuration and Functions

**PWP Package  
28-Pin HTSSOP  
(Top View)**



### Pin Functions

PIN		I/O/P <sup>(1)</sup>	DESCRIPTION
NAME	NUMBER		
$\overline{SD}$	1	I	Shutdown logic input for audio amp (LOW = outputs Hi-Z, HIGH = outputs enabled). TTL logic levels with compliance to AVCC.
$\overline{FAULT}$	2	O	Open drain output used to display short circuit or dc detect fault status. Voltage compliant to AVCC. Short circuit faults can be set to auto-recovery by connecting $\overline{FAULT}$ pin to $\overline{SD}$ pin. Otherwise, both short circuit faults and dc detect faults must be reset by cycling PVCC.
LINP	3	I	Positive audio input for left channel. Biased at 3 V. Connect to GND for PBTL mode.
LINN	4	I	Negative audio input for left channel. Biased at 3 V. Connect to GND for PBTL mode.
LIMRATE	5	I	Decay speed for clip free power limiter. Connect a resistor divider from GVDD to GND to set decay speed. Connect directly to GND to disconnect limiter.
GAIN	6	I	4-state Amplifier gain select. Connect a resistor divider from GVDD to GND to set closed loop gain.
SSCTRL	7	I	Spread spectrum control. Connect a resistor divider from GVDD to GND to set mode. Connect to GND for disable spread spectrum.
LIMTHRES	8	I	Voltage limit level for AGL and power limiter. Connect a resistor divider from GVDD to GND to set limit. Connect directly to GVDD to disconnect limiter
GVDD	9	O	High-side FET gate drive supply. Nominal voltage is 7 V. Also should be used as supply for LIMTHRES limit function
GND	10	P	Analog signal ground.
RINN	11	I	Negative audio input for right channel. Biased at 3 V.
RINP	12	I	Positive audio input for right channel. Biased at 3 V.
1SPW	13	I	Modulation scheme select. Low: BD mode, high: 1SPW mode.
AVCC	14	P	Analog supply
PVCC	15	P	Power supply for right channel H-bridge. Right channel and left channel power supply inputs are connected internally.
PVCC	16	P	Power supply for right channel H-bridge. Right channel and left channel power supply inputs are connected internally.
BSPR	17	I	Bootstrap I/O for right channel, positive high-side FET.
OUTPR	18	O	Class-D H-bridge positive output for right channel.
GND	19	P	Power ground for the H-bridges.
OUTNR	20	O	Class-D H-bridge negative output for right channel.
BSNR	21	I	Bootstrap I/O for right channel, negative high-side FET.
BSNL	22	I	Bootstrap I/O for left channel, negative high-side FET.
OUTNL	23	O	Class-D H-bridge negative output for left channel.
GND	24	P	Power ground for the H-bridges.
OUTPL	25	O	Class-D H-bridge positive output for left channel.
BSPL	26	I	Bootstrap I/O for left channel, positive high-side FET.
PVCC	27	P	Power supply for left channel H-bridge. Right channel and left channel power supply inputs are connected internally.
PVCC	28	P	Power supply for left channel H-bridge. Right channel and left channel power supply inputs are connected internally.
Thermal Pad		P	Connect to GND for best thermal and electrical performance

(1) I = Input, O = Output, P = Power