

LM48580-Boomer™ Audio Power Amplifier Series High Efficiency Class H, High Voltage, Haptic Piezo Actuator / Ceramic Speaker Driver

Features

- ❑ Class H Driver
- ❑ Integrated Boost Converter
- ❑ Bridge-tied Load Output
- ❑ Differential Input
- ❑ Three Pin-Programmable Gains
- ❑ Low Supply Current
- ❑ Micro-Power Shutdown
- ❑ Thermal Overload Protection

Key Specifications

- ❑ 30.5 Vpp Output Voltage @ 200Hz
- ❑ 2.7mA Quiescent Current @ 3.6V
- ❑ 800 mW Power Dissipation at 25Vpp
- ❑ 0.1uA Shutdown Current

Applications

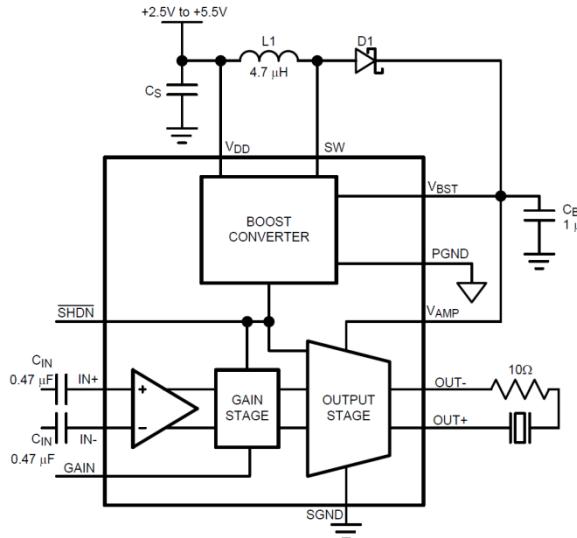
- ❑ Touch Screens
- ❑ Tablets
- ❑ Smart Phones
- ❑ MP3 Players

Benefits

- ❑ Minimum external components
- ❑ Power savings compared to Class AB
- ❑ Increased headroom due to differential architecture

Packaging

- ❑ 12 Pin DSBGA (2.00 x 1.80 x 0.6mm)

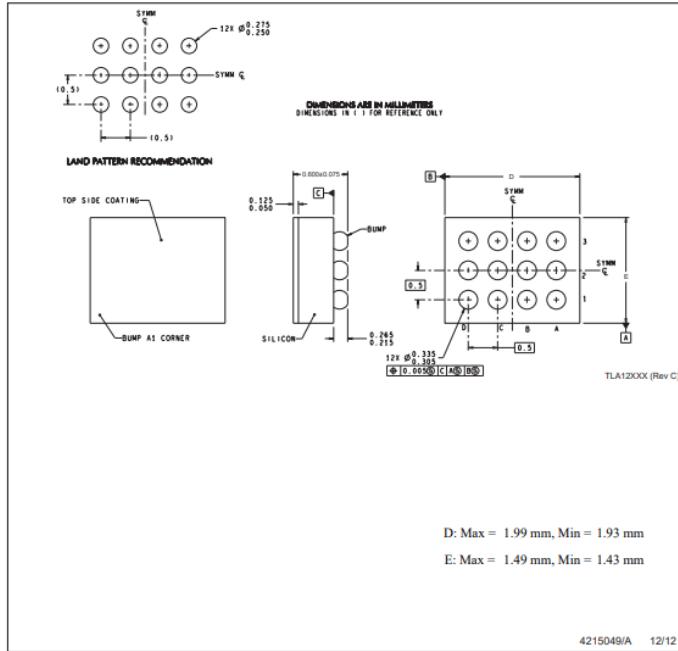


Summary

1. Package information: 2.00 x 1.80 x 0.6mm
2. Full Part Number: LM48580TLX/NOPB
3. Max output power: 30.5Vp-p at 200Hz
4. Efficiency vs output voltage: 63% at 1KHz
5. Package type: DSBGA
6. Competition advantage. Small Package Piezo Driver

Packaging Information

YZR0012

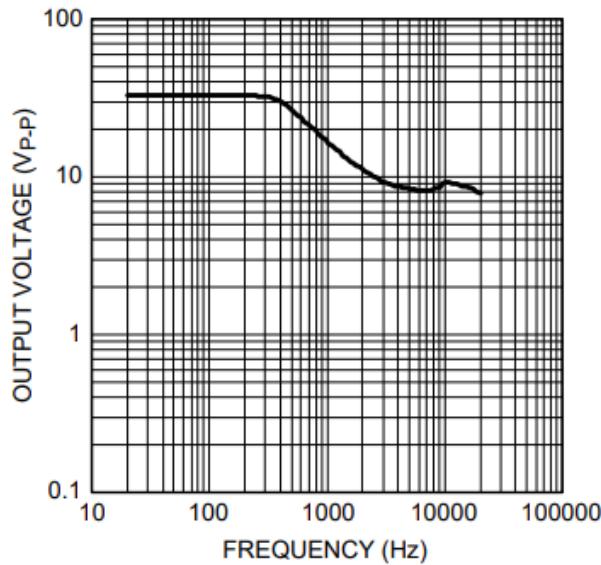


Full Part Number

PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead/Ball Finish (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
LM48580TL/NOPB	ACTIVE	DSBGA	YZR	12	250	Green (RoHS & no Sb/Br)	SNAGCU	Level-1-260C-UNLIM	-40 to 85	GM3	Samples
LM48580TLX/NOPB	ACTIVE	DSBGA	YZR	12	3000	Green (RoHS & no Sb/Br)	SNAGCU	Level-1-260C-UNLIM	-40 to 85	GM3	Samples

Max Output Power: 30.5Vp-p at 200Hz

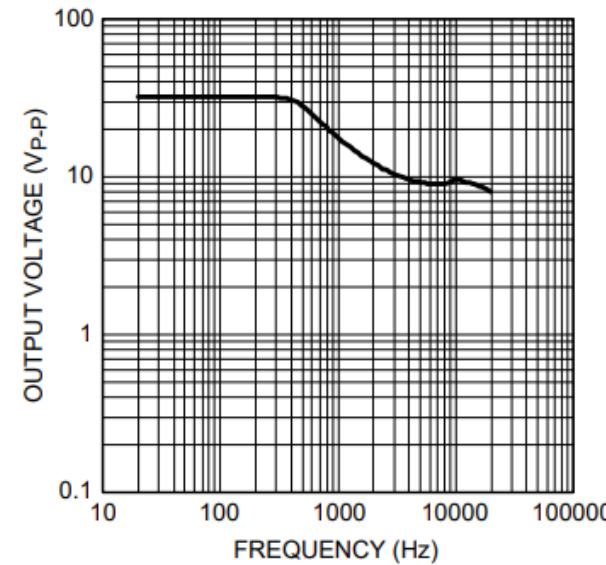


$V_{DD} = 3.6 \text{ V}$

THD+N = 5%

$R_L = 6 \mu\text{F} + 10 \Omega$

Figure 3. Output Voltage vs Frequency



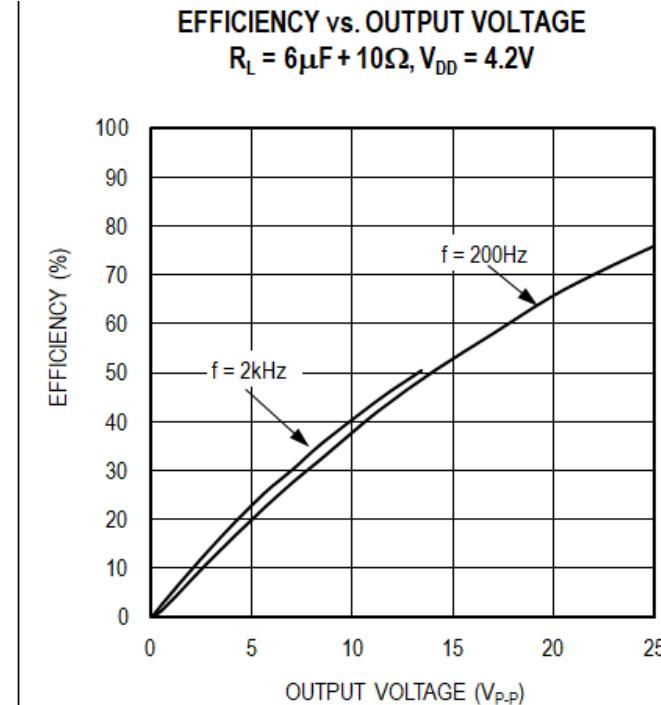
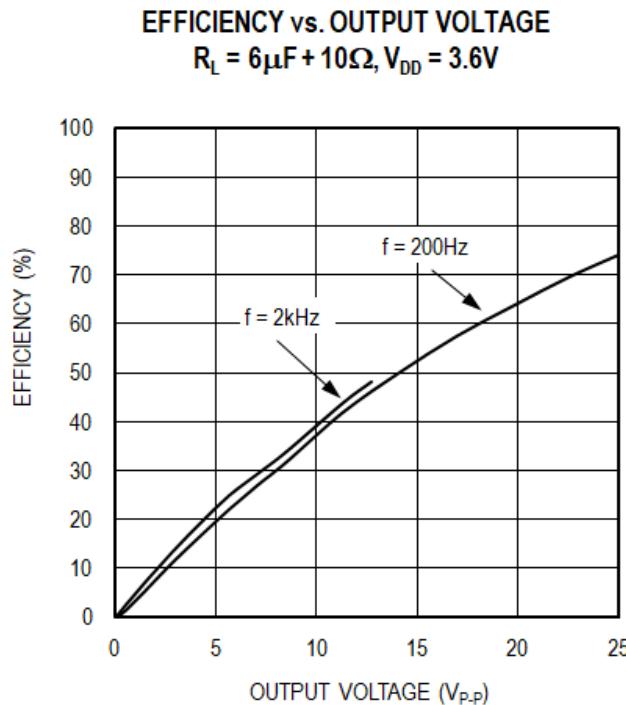
$V_{DD} = 4.2 \text{ V}$

THD+N = 5%

$R_L = 6 \mu\text{F} + 10 \Omega$

Figure 4. Output Voltage vs Frequency

Efficiency vs Output Voltage



Package Type: DSBGA

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