

# STK4152

## AF Power Amplifier (Split Power Supply)

### ◆ Features

- the STK4152 series and STK4101V series (high-grade type) are pin-compatible in the output range of 6 to 50W and enable easy design
- Built-in muting circuit to cut off various kinds of pop noise
- Greatly reduced heat sink due to substrate temperature 125 guaranteed
- Excellent cost performance

### Specifications

#### ◆ Maximum Ratings at Ta=25

Parameter	Symbol	Conditions	Ratings	UNIT
Maximum supply voltage	$V_{CC}$ max		$\pm 42$	V
Thermal resistance	j-c		2.1	/W
Junction temperature	$T_j$		150	
Operating substrate temperature	$T_c$		125	
Storage temperature	$T_{stg}$		-30 to +125	
Available time for load short-circuit	$t_s$	$V_{CC} = \pm 27.5V, R_L = 8 \Omega, f = 50Hz, P_O = 30W$	2	s

#### ◆ Recommended operating conditions at Ta=25

Parameter	Symbol	Conditions	Ratings	UNIT
Recommended supply voltage	$V_{CC}$		$\pm 27.5$	V
Load resistance	$R_L$		8	

#### ◆ Operating characteristics at Ta=25, $V_{CC} = \pm 27.5V, R_L = 8 \Omega, R_g = 600 \Omega, V_G = 40dB$ , $R_L$ : non-inductive load

Parameter	Symbol	Conditions	min	typ	max	unit
Quiescent current	$I_{CCO}$	$V_{CC} = \pm 33V$	20	40	100	mA
Output power	$P_O$ (1)	THD=0.4% $f=20Hz$ to 20kHz	30			W
	$P_O$ (2)	$V_{CC} = \pm 25V, THD=1.0%$ $R_L=4 \Omega, f=1kHz$	35			W
Total harmonic distortion	THD	$P_O=1.0W, f=1kHz$			0.3	%
Frequency response	$f_L, f_H$	$P_O=1.0W, \pm 0$ dB $-3$		20 to 50k		Hz
Input impedance	$r_j$	$P_O=1.0W, f=1kHz$		55		k
Output noise voltage	$V_{NO}$	$V_{CC} = \pm 33V, R_g=10 k \Omega$			1.2	mVrms
Neutral voltage	$V_N$	$V_{CC} = \pm 33V$	-70	0	+70	mV
Muting voltage	$V_M$		-2	-5	-10	V

### Package Dimensions

unit:mm [STK4152II]

