

STK4142

AF Power Amplifier (Split Power Supply)

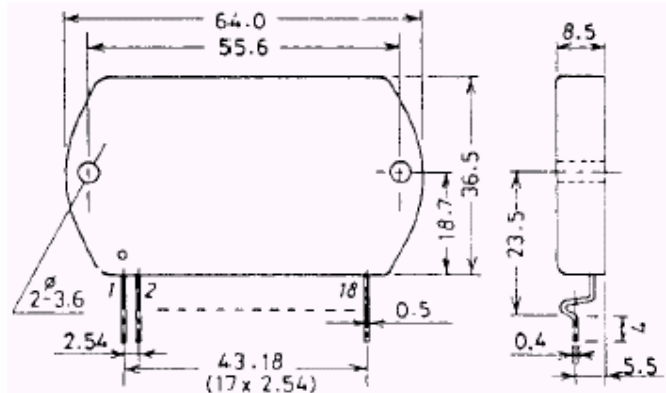
◆ Features

- . the STK4142 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

Package Dimensions

[STK4142II]

unit:mm



Specifications

◆ Maximum Ratings at Ta=25

Parameter	Symbol	Conditions	Ratings	UNIT
Maximum supply voltage	V_{CC} max		± 39	V
Thermal resistance	j-c		2.6	/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	$V_{CC} = \pm 26V, R_L = 8\Omega, f = 50Hz, P_O = 25W$	2	s

◆ Recommended operating conditions at Ta=25

Parameter	Symbol	Conditions	Ratings	UNIT
Recommended supply voltage	V_{CC}		± 26	V
Load resistance	R_L		8	

◆ Operating characteristics at Ta=25, $V_{CC} = \pm 26V, R_L = 8\Omega, R_g = 600\Omega, V_G = 40dB$, R_L : non-inductive load

Parameter	Symbol	Conditions	min	typ	max	unit
Quiescent current	I_{CCO}	$V_{CC} = \pm 31V$	20	40	100	mA
Output power	$P_O (1)$	THD=0.4% $f = 20Hz$ to 20kHz	25			W
	$P_O (2)$	$V_{CC} = \pm 22V, THD = 1.0\%$ $R_L = 4\Omega, f = 1kHz$	25			W
Total harmonic distortion	THD	$P_O = 1.0W, f = 1kHz$			0.3	%
Frequency response	f_L, f_H	$P_O = 1.0W, \pm 0dB$ -3		20 to 50k		Hz
Input impedance	r_i	$P_O = 1.0W, f = 1kHz$		55		k
Output noise voltage	V_{NO}	$V_{CC} = \pm 31V, R_g = 10k$			1.2	mVrms
Neutral voltage	V_N	$V_{CC} = \pm 31V$	-70	0	+70	mV
Muting voltage	V_M		-2	-5	-10	V