

STK036

THICK FILM HYBRID INTEGRATED CIRCUIT FOR AF
POWER AMPLIFIER (Split power supply)
OUTPUT POWER: 50 watts typical ($R_L=4\text{ohm}$)
35 watts typical ($R_L=8\text{ohm}$)

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

Maximum Supply Voltage	$V_{CC\text{ max}}$	+35	V
Operating Case Temperature	T_c	85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-30~+100	$^\circ\text{C}$
Available Load Shorting Time	t_s	2	sec

($V_{CC}=+27\text{V}$, $P_O=40\text{W}$, $R_L=4\text{ohm}$, $f=50\text{Hz}$)

RECOMMENDED OPERATION RATINGS/ $T_a=25^\circ\text{C}$

Supply Voltage	V_{CC}	+27	V
Load Resistance	R_L	4~8	ohm

OPERATION CHARACTERISTICS/ $T_a=25^\circ\text{C}$, $V_{CC}=+27\text{V}$, $R_g=600\text{ohm}$, $f=1\text{KHz}$, $R_{NF}=910\text{ohm}$

		$R_L=4\text{ohm}$			$R_L=8\text{ohm}$			unit
		min	typ	max	min	typ	max	
Total Current	I_{CCO}	10	30	50	10	30	50	mA
Output Power ($KF=0.5\%$)	P_O	40	50		30	35		W
Voltage Gain ($P_O=0.1\text{W}$)	V_G	29	30	31	29	30	31	dB
Distortion ($P_O=0.1\text{W}$)	KF			0.2			0.2	%
Input Resistance ($P_O=0.1\text{W}$)	r_i	20K	27K		20K	27K		ohm
High Cutoff Frequency	f_{CH}	100K			100K			Hz
Low Cutoff Frequency	f_{CL}			10			10	Hz
Power Bandwidth ($KF=0.5\%$, -3dB)	PBW		20~20K			20~20K		Hz
Output Noise Voltage ($R_g=2.2\text{Kohm}$)	V_{NO} ($V_{CC}=+30\text{V}$)		1.5			1.5		mV
Output Center Point DC Voltage	V_N	-70	0	+70	-70	0	+70	mV

EQUIVALENT CIRCUIT AND CASE OUTLINE (unit: mm)

