

STK035

THICK FILM HYBRID INTEGRATED CIRCUIT FOR AF
POWER AMPLIFIER(Single-ended 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	$V_{CC \text{ max}}$	70	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

($V_{CC}=54\text{V}, P_O=40\text{W}, R_L=4\text{ohm}, f=50\text{Hz}$)

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

Supply Voltage	V_{CC}	54	V
Load Resistance	R_L	4~8	ohm

OPERATION CHARACTERISTICS/ $T_a=25^\circ\text{C}, V_{CC}=54\text{V}, R_g=600\text{ohm}, f=1\text{KHz}, R_{NF}=82\text{ohm}$

		$R_L=4\text{ohm}$			$R_L=8\text{ohm}$			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($P_O=0.1\text{W}$)	VG	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 ($V_i=27\text{mV}, -3\text{dB}$)	f_{CH}	100K			100K			Hz
Low Cutoff Frequency ($V_i=27\text{mV}, -3\text{dB}$)	f_{CL}			50			30	Hz
Power Bandwidth(KF=0.5%, -3dB)	PBW		20~20K			20~20K		Hz
Output Noise Voltage($R_g=10\text{Kohm}$)	V_{NO} ($V_{CC}=60\text{V}$)			1.5			1.5	mV

EQUIVALENT CIRCUIT AND CASE OUTLINE(unit: mm)

