



**60 W MIN. AF POWER AMPLIFIER OUTPUT STAGE (DPP)
INTEGRATED EMITTER RESISTOR
THICK FILM HYBRID INTEGRATED CIRCUIT**

FEATURES

- Does not require externally connected emitter resistors.
- Values of emitter resistors have carefully been reviewed to provide superior characteristics.
 - a. Better supply voltage utilization permits designing power supply voltages that are ± 0.7 V (for $R_L = 4\Omega$) lower than those required for previous DPP models.
 - b. Maximum allowable power consumption for each resistor is 5 W or higher, permitting accommodation for all loads.
 - c. Peak allowable current is 18 A or more, providing an ample margin even for peak currents under when short circuited or similar emergencies.
 - d. In particular, maximum outputs 4Ω have been enormously improved.
- Use of emitter resistors facilitates meeting different safety standards and designing PCBs.
- Mutual interferences in the high-frequency range caused by layout of externally connected emitter resistors no longer exist. This facilitates lower distortion factors.
- Pins are used for emitter resistor output terminals that were not connected in previous DPPs. All other terminals remain unchanged; there is no need for major circuit board changes.

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

			unit
Maximum power supply voltage	V_{CC} max	± 56	V
Thermal resistance	θ_{j-c} Ideal dissipating condition	1.6	$^\circ\text{C}/\text{W}$
Collector current	I_{CC}	10	A
Junction temperature	T_j	150	$^\circ\text{C}$
Storage ambient temperature	T_{stg}	$-30 \sim +105$	$^\circ\text{C}$

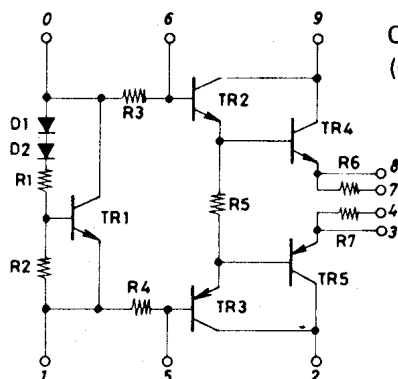
RECOMMENDED OPERATING CONDITIONS/ $T_a = 25^\circ\text{C}$

			unit
Recommended power supply voltage	V_{CC}	± 40	V
Load resistance	R_L	8	Ω

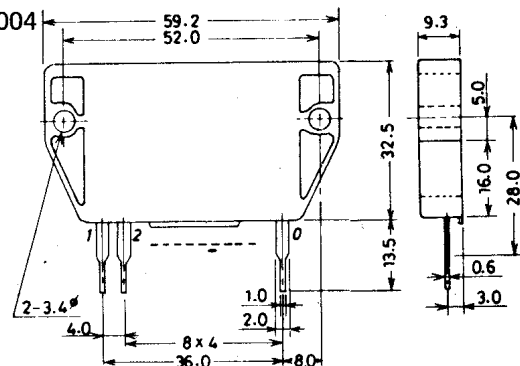
OPERATING CHARACTERISTICS/ $T_a = 25^\circ\text{C}$, $V_{CC} = \pm 40$ V, $R_L = 8\Omega$, $R_g = 600\Omega$, $V_G = 26.3$ dB, at specified test circuit (conforming with sample application circuit)

			min	typ	max	unit
No signal current	I_{CC0}	$V_{CC} = \pm 48$ V	20	40	80	mA
Output power	P_O (1)	THD = 0.02%, $f = 20$ Hz ~ 20 kHz	60			W

Equivalent circuit



Case Outline 4004 (unit: mm)



These specifications are subject to change without notice.

STK-1060

		min	typ	max	unit
Output power	P_o (2) $V_{CC} = \pm 34.5\text{ V}$, $f = 1\text{ kHz}$, THD = 0.03%, $R_L = 4\Omega$	70			W
Total harmonic distortion	THD $P_o = 1 \sim 60\text{ W}$, $f = 20\text{ Hz} \sim 20\text{ kHz}$			0.02	%
Emitter resistor	RE	0.18	0.22	0.30	Ω

■ SAMPLE APPLICATION CIRCUIT: 60 W min. AF Power Amplifier

