

Silicon NPN Transistor

KSD794A / D794A

complementary type: KSB744A

DATASHEET

Audio Frequency Power Amplifier

Technical Data (Short Form):

Case - TO-18

Ucb	-	70V
Uce	-	60V
Ic	-	3A
N	-	10W
F	-	60MHz
hFE	-	60-320



OEM: Samsung

Source: Samsung CD 1995



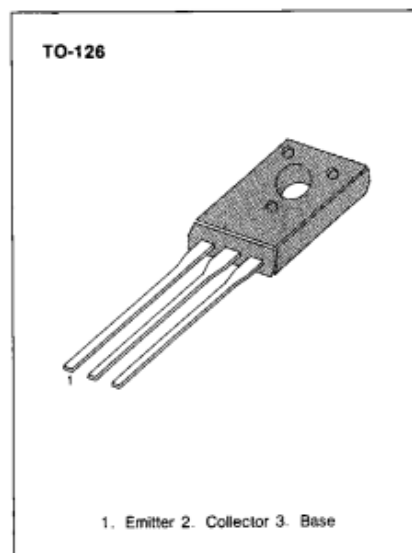
1. Emitter 2. Collector 3. Base

AUDIO FREQUENCY POWER AMPLIFIER

• Complement to KSB744/KSB744A

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	70	V
Collector-Emitter Voltage : KSD794	V_{CE0}	45	V
: KSD794A		60	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current (DC)	I_C	3	A
• Collector Current (Pulse)	I_C	5	A
Base Current (DC)	I_B	0.6	A
Collector Dissipation ($T_a=25^\circ\text{C}$)	P_C	1	W
Collector Dissipation ($T_c=25^\circ\text{C}$)	P_C	10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

* $PW \leq 10\text{ms}$, Duty Cycle $\leq 50\%$ **ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=45\text{V}$, $I_E=0$			1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=3\text{V}$, $I_C=0$			1	μA
• DC Current Gain	h_{FE1}	$V_{CE}=5\text{V}$, $I_C=20\text{mA}$	30	70		
	h_{FE2}	$V_{CE}=5\text{V}$, $I_C=0.5\text{A}$	60	100	320	
• Collector Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=1.5\text{A}$, $I_B=0.15\text{A}$		0.3	2	V
• Base Emitter Saturation Voltage	$V_{BE}(\text{sat})$	$I_C=1.5\text{A}$, $I_B=0.15\text{A}$		0.8	2	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}$, $I_C=0.1\text{A}$		60		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$		40		pF

* Pulse Test: $PW \leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$ Pulsed **h_{FE} (2) CLASSIFICATION**

Classification	R	O	Y
h_{FE} (2)	60-120	100-200	160-320

