

# Silicon NPN Transistor

## KSD882 / D882

complementary type: KSB772

# DATASHEET

Audio Frequency Power Amplifier / Low Speed Switching

Technical Data (Short Form):

Case: TO-126

Ucb	-	40V
Uce	-	30V
Ic	-	3A
N	-	10W
F	-	90MHz
hFE	-	60-400



1. Emitter 2. Collector 3. Base

OEM: Samsung

Source: Samsung CD 1995

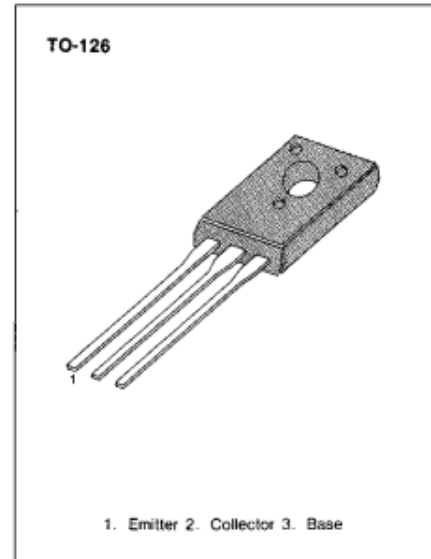
## AUDIO FREQUENCY POWER AMPLIFIER LOW SPEED SWITCHING

• Complement to KSB772

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current (DC)	$I_C$	3	A
Collector Current (Pulse)	$I_C$	7	A
Base Current (DC)	$I_B$	0.6	A
Collector Dissipation ( $T_c=25^\circ\text{C}$ )	$P_C$	10	W
Collector Dissipation ( $T_a=25^\circ\text{C}$ )	$P_C$	1	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	$I_{CBO}$	$V_{CB}=30\text{V}$ , $I_E=0$			1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=3\text{V}$ , $I_C=0$			1	$\mu\text{A}$
*DC Current Gain	$h_{FE1}$	$V_{CE}=2\text{V}$ , $I_C=20\text{mA}$	30	150		
	$h_{FE2}$	$V_{CE}=2\text{V}$ , $I_C=1\text{A}$	60	160	400	
*Collector Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=2\text{A}$ , $I_B=0.2\text{A}$		0.3	0.5	V
*Base Emitter Saturation Voltage	$V_{BE}(\text{sat})$	$I_C=2\text{A}$ , $I_B=0.2\text{A}$		1.0	2.0	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=5\text{V}$ , $I_E=0.1\text{A}$		90		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ $f=1\text{MHz}$		45		pF

\* Pulse Test:  $PW \leq 350\mu\text{s}$ , Duty Cycle  $\leq 2\%$

### $h_{FE}(2)$ CLASSIFICATION

Classification	R	O	Y	G
$h_{FE}(2)$	60-120	100-200	160-320	200-400

