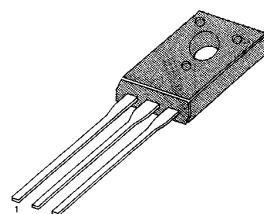


**LOW POWER AUDIO AMPLIFIER
LOW CURRENT, HIGH SPEED
SWITCHING APPLICATIONS**

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage : KSE170	V_{CBO}	-60	V
: KSE171		-80	V
: KSE172		-100	V
Collector-Emitter Voltage	V_{CEO}		
: KSE170		-40	V
: KSE171		-60	V
: KSE172		-80	V
Emitter-Base Voltage	V_{EBO}	-7	V
Collector Current (DC)	I_C	-3	A
Collector Current (Pulse)	I_C	-6	A
Base Current (DC)	I_B	-1	A
Collector Dissipation ($T_A=25^\circ\text{C}$)	P_C	1.5	W
Collector Dissipation ($T_C=25^\circ\text{C}$)	P_C	12.5	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ\text{C}$

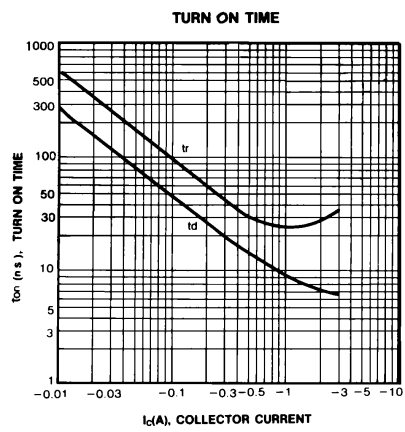
TO-18



1. Emitter 2. Collector 3. Base

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 10\text{mA}, I_B = 0$	-40 -60 -80		V
: KSE170					V
: KSE171					V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -60\text{V}, I_B = 0$		-0.1	μA
: KSE171		$V_{CB} = -80\text{V}, I_E = 0$		-0.1	μA
: KSE172		$V_{CB} = -100\text{V}, I_E = 0$		-0.1	μA
: KSE170		$V_{CB} = -60\text{V}, I_E = 0, T_C = 150^\circ\text{C}$		-0.1	mA
: KSE171		$V_{CB} = -80\text{V}, I_E = 0, T_C = 150^\circ\text{C}$		-0.1	mA
: KSE172		$V_{CB} = -100\text{V}, I_E = 0, T_C = 150^\circ\text{C}$		-0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE} = -7\text{V}, I_C = 0$		-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	50	250	
		$V_{CE} = -1\text{V}, I_C = -500\text{mA}$	30		
		$V_{CE} = -1\text{V}, I_C = -1.5\text{A}$	12		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.3	V
		$I_C = -1.5\text{A}, I_B = -150\text{mA}$		-0.9	V
		$I_C = -3\text{A}, I_B = -600\text{mA}$		-1.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1.5\text{A}, I_B = -150\text{mA}$		-1.5	V
		$I_C = -3\text{A}, I_B = -600\text{mA}$		-2.0	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -1\text{V}, I_C = -500\text{mA}$		-1.2	V
Current Gain-Bandwidth Product	f_T	$V_{CE} = -10\text{V}, I_C = -100\text{mA}, f = 10\text{MHz}$	50		MHz
Output Capacitance	C_{OB}	$V_{CB} = -10\text{V}, I_E = 0, f = 0.1\text{MHz}$		50	pF



KSE170/171/172

PNP EPITAXIAL SILICON TRANSISTOR

