

LOW FREQUENCY AMPLIFIER

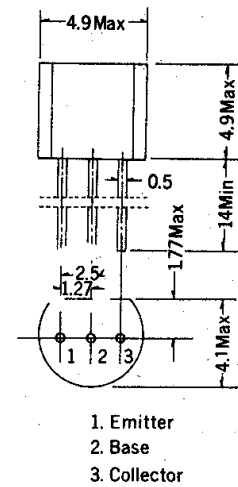
- Complement to KSC945
- Collector-Base Voltage $V_{CB0} = -50V$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	-50	V
Collector-Emitter Voltage	V_{CE0}	-40	V
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-100	mA
Collector Dissipation	P_C	250	mW
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature	T_{stg}	-55 to +125	$^\circ C$

JEDEC TO-92

Unit: mm

ELECTRIC CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C = -10mA, R_{BE} = \infty$	-40			V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = -10\mu A, I_C = 0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -40V, I_E = 0$	1		-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	40		700	
Collector-Emitter Saturation Voltage	$V_{CE}(sat)$	$I_C = -30mA, I_B = -3mA$		-0.1	-0.5	V
DC Base Voltage	V_{BE}	$V_{CE} = -6V, I_C = -1mA$	-0.50	-0.62	-0.80	V
Current-Gain-Bandwidth Product	f_T	$V_{CE} = -6V, I_E = 10mA$		180		MHz
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$		2.8		pF
Common Source Noise Figure	NF	$V_{CE} = -6V, I_C = -0.3mA$ $f = 100Hz, R_g = 10K\Omega$		6.0		dB

 h_{FE} CLASSIFICATION

CLASSIFICATION	R	O	Y	G	L
h_{FE}	40-80	70-140	120-240	200-400	350-700