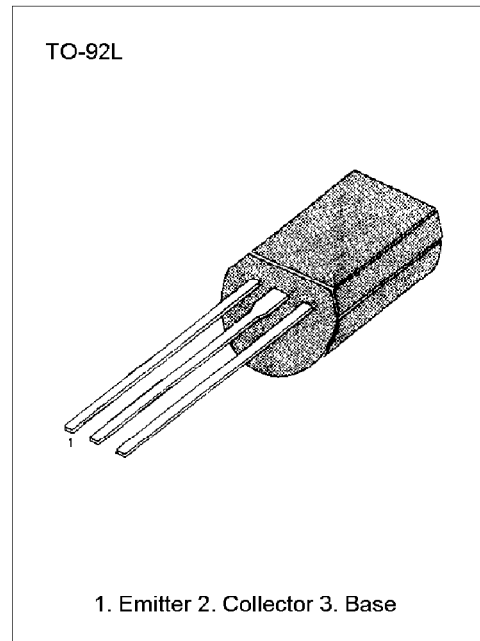


**LOW FREQUENCY AMPLIFIER
MEDIUM SPEED SWITCHING**

- Complement to KSC2331
- Collector-Base Voltage $V_{CBO} = -80V$
- Collector Dissipation $P_C = 1W$

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-8	V
Collector Current	I_C	-700	mA
Collector Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$)

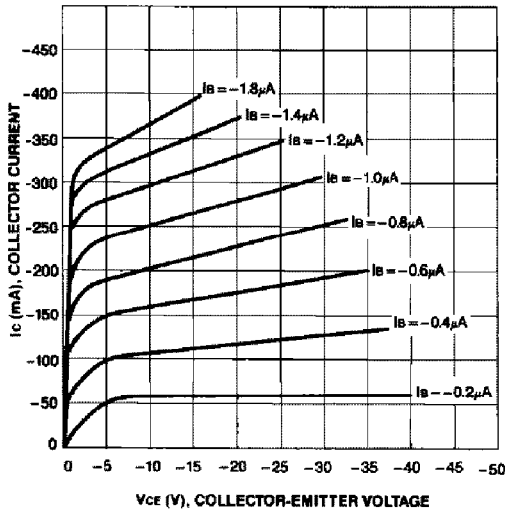
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-80			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -10mA, I_B = 0$	-60			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-8			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -2V, I_C = -50mA^*$	40		240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA^*$		-0.3	-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(on)}$	$I_C = -500mA, I_B = -50mA^*$		-0.9	-1.2	V
Output Capacitance	f_T	$V_{CE} = -10V, I_C = -50mA$		100		MHz
	C_{OB}	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$		13		pF

* Pulse Test: $PW_{350\mu s}$, Duty cycle $\leq 2\%$

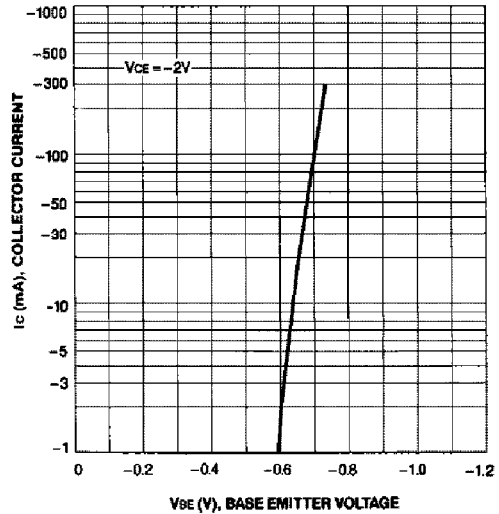
h_{FE} CLASSIFICATION

Classification	R	O	Y
h_{FE}	40-80	70-140	120-240

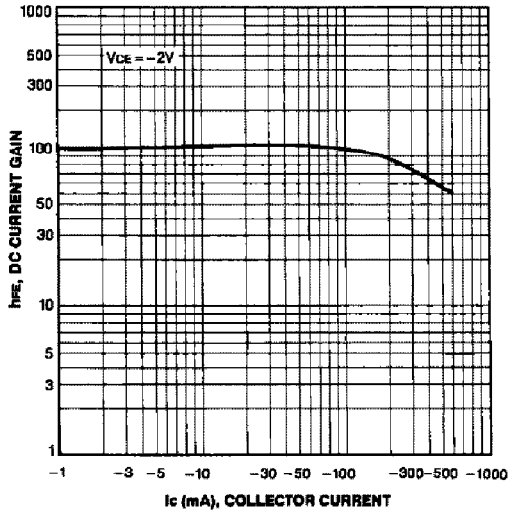
STATIC CHARACTERISTIC



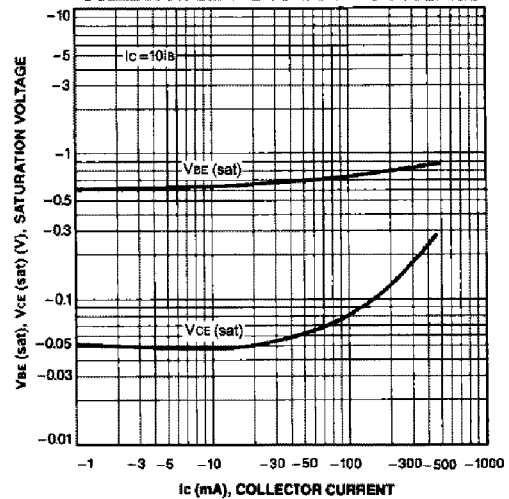
BASE-EMITTER ON VOLTAGE



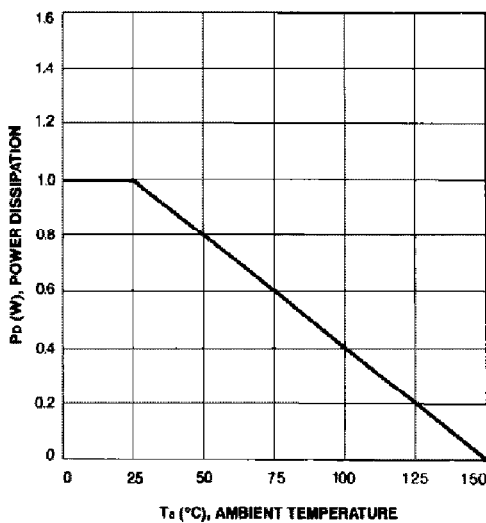
DC CURRENT GAIN



**BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE**



POWER DERATING



SAFE OPERATING AREA

