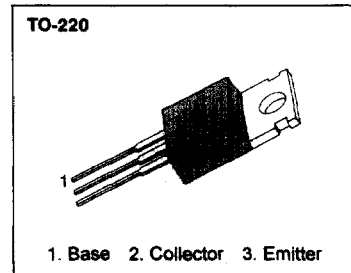


**LOW FREQUENCY POWER AMPLIFIER  
POWER REGULATOR**

- Complement to KSC1173
- Collector Current :  $I_C = -3A$
- Collector Dissipation :  $p_C = 10W$  ( $T_C = 25^\circ C$ )

**ABSOLUTE MAXIMUM RATINGS**

Characteristic	Symbol	Rating	Unit
Collector- Base Voltage	$V_{CBO}$	- 30	V
Collector- Emitter Voltage	$V_{CEO}$	- 30	V
Emitter- Base Voltage	$V_{EBO}$	- 5	V
Collector Current	$I_C$	- 3	A
Collector Dissipation ( $T_C = 25^\circ C$ )	$P_C$	10	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{STG}$	- 55 ~ 150	$^\circ C$



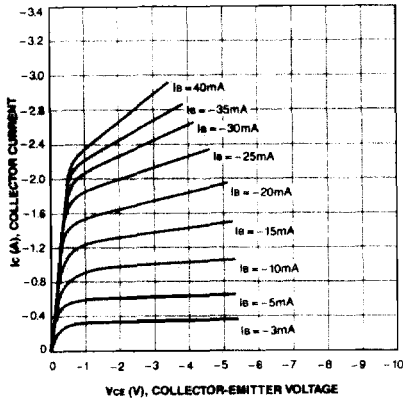
**ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ C$ )**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = - 500\mu A, I_E = 0$	- 30			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = - 10mA, I_B = 0$	- 30			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = - 1mA, I_C = 0$	- 5			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = - 20V, I_E = 0$			- 1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = - 5V, I_C = 0$			- 1.0	$\mu A$
DC Current Gain	$h_{FE1}$	$V_{CE} = - 2V, I_C = - 0.5A$	70		240	
	$h_{FE2}$	$V_{CE} = - 2V, I_C = - 2.5A$	25			
Collector- Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = - 2A, I_B = - 0.2A$		- 0.3	- 0.8	V
Base- Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = - 2V, I_C = - 0.5A$		- 0.75	- 1.0	V
Current Gain Bandwidth Product	$f_T$	$V_{CE} = - 2V, I_C = - 0.5A$		100		MHz
Output Capacitance	$C_{OB}$	$V_{CB} = - 10V, I_E = 0,$ $f = 1MHz$		40		pF

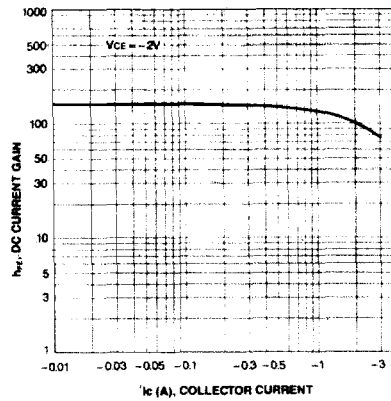
**$h_{FE}$  CLASSIFICATION**

Classification	O	Y
$h_{FE(1)}$	70-140	120-240

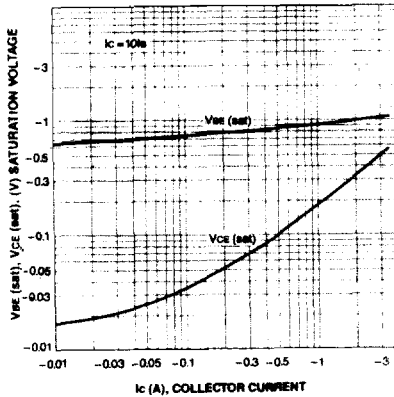
STATIC CHARACTERISTIC



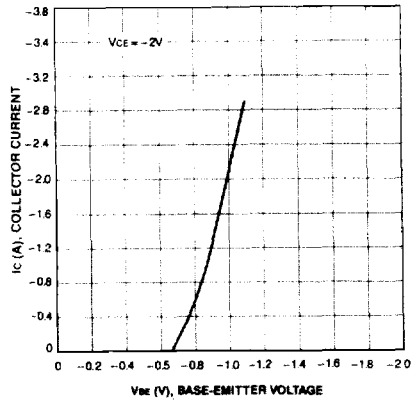
DC CURRENT GAIN



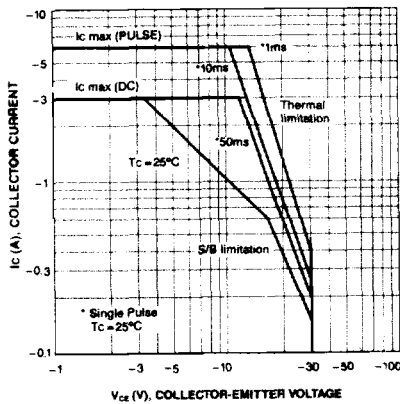
BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE



BASE-EMITTER ON VOLTAGE



SAFE OPERATING AREA



POWER DERTING

