

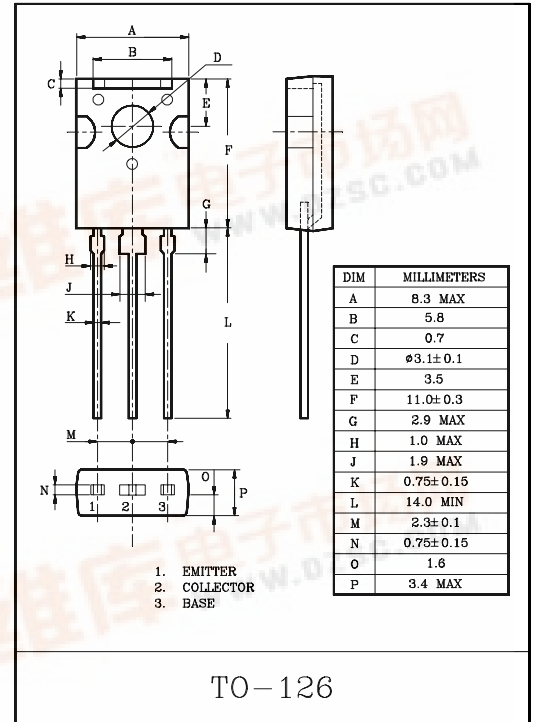
AUDIO AMPLIFIER, VOLTAGE REGULATOR
DC-DC CONVERTER, RELAY DRIVER

FEATURES

- Low Saturation Voltage.
: $V_{CE(sat)} \leq -0.8V$ ($I_C = -2A, I_B = -0.2A$)
- Excellent h_{FE} Linearity and high h_{FE} .
: $h_{FE}: 70 \sim 240$ ($V_{CE} = -2V, I_C = -0.5A$)

MAXIMUM RATINGS (Ta=25°C)

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	DC	I_C	-3 A
Emitter Current		I_E	-3 A
Collector Power Dissipation	Ta=25°C	P_C	1.5 W
	Tc=25°C	P_C	10 W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C



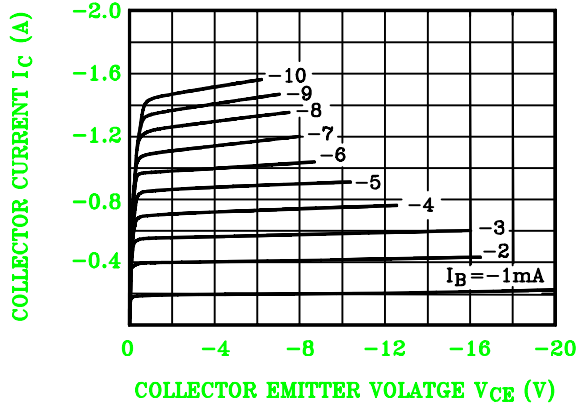
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -20V, I_E = 0$	-	-	-1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5.0V, I_C = 0$	-	-	-1.0	μA
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -2.0V, I_C = -0.5A$	70	-	240	
	$h_{FE(2)}$	$V_{CE} = -2.0V, I_C = -2.5A$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2.0A, I_B = -0.2A$	-	-0.3	-0.8	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -2A, I_B = -0.5A$	-	-0.75	-1.0	V
Gain Bandwidth Product	f_T	$V_{CE} = -2V, I_C = -0.5A$	-	100	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	40	-	pF

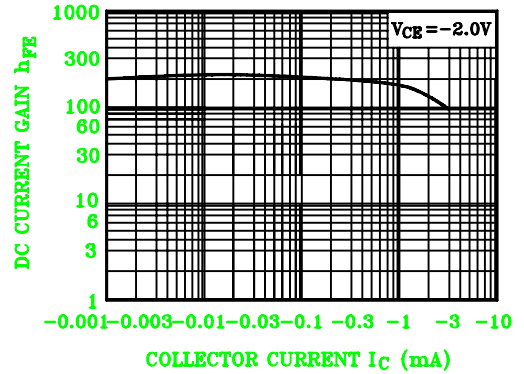
Note : $h_{FE(1)}$ Classification O:70~140 , Y:120~240

KTA1705

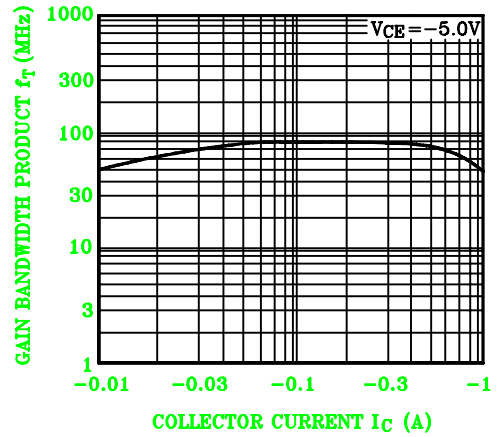
$I_C - V_{CE}$



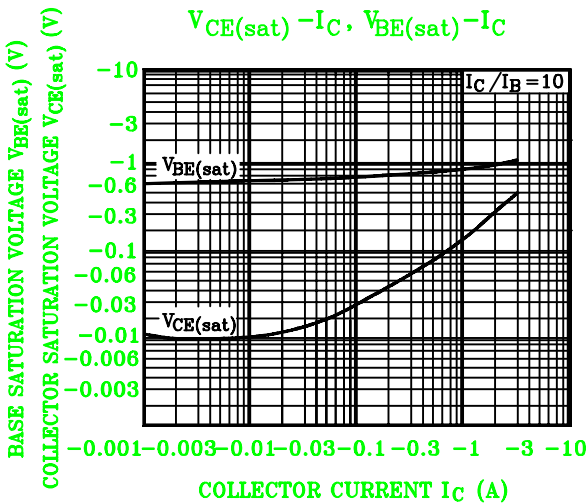
$h_{FE} - I_C$



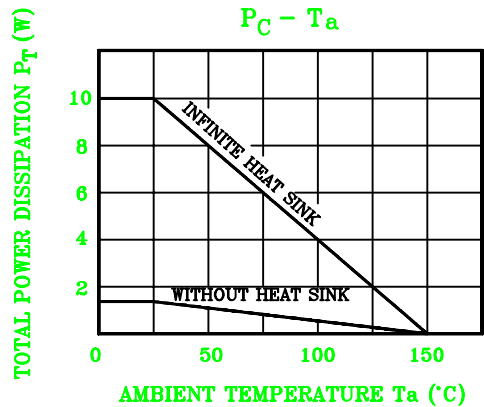
$f_T - I_C$



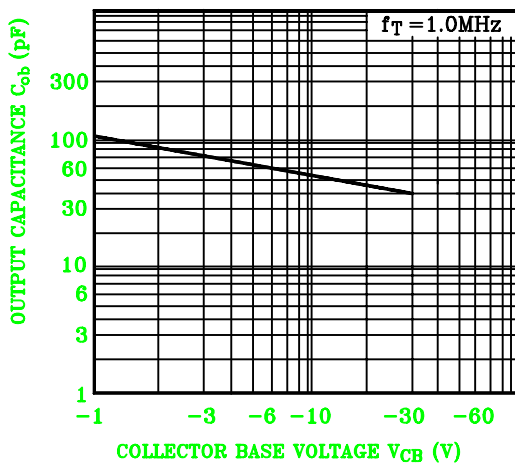
$V_{CE(sat)} - I_C, V_{BE(sat)} - I_C$



$P_C - T_a$



$C_{ob} - V_{CB}$



SAFE OPERATING AREA

