

SEMICONDUCTOR TECHNICAL DATA

KTA2400 EPITAXIAL PLANAR PNP TRANSISTOR

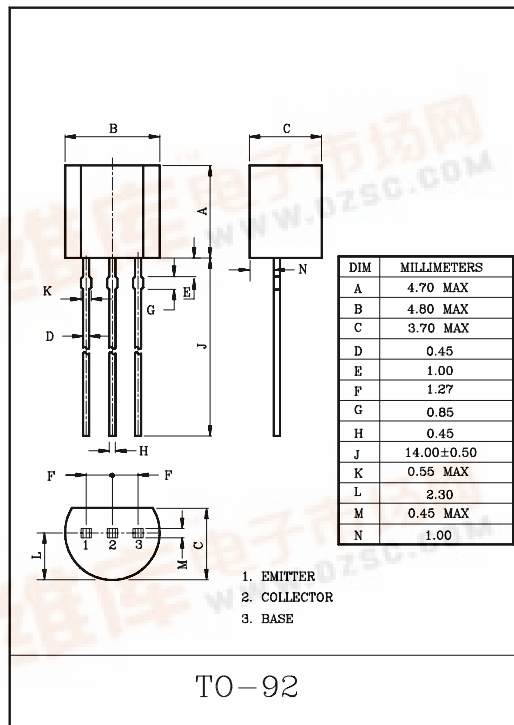
DIFFERENTIAL AMP. APPLICATION.

FEATURES

- Matched Pairs for Differential Amplifiers.
- High Breakdown Voltage : $V_{CEO} = -120V$ (Min.).
- Low Noise : $NF = 1dB$ (Typ.), $10dB$ (Max.).
- Complementary to KTC3400.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-120	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Emitter Current	I_E	100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ C$



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

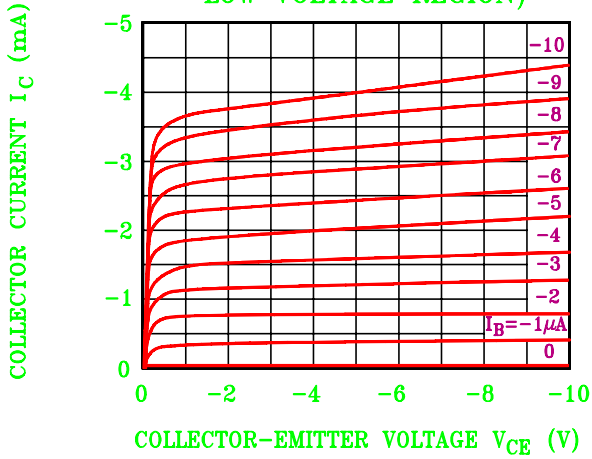
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -120V, I_E = 0$	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-100	nA
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-120	-	-	V
DC Current Gain	h_{FE} (Note)	$V_{CE} = -6V, I_C = -2mA$	200	-	400	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$	-	-	-0.3	V
Transition Frequency	f_T	$V_{CE} = -6V, I_C = -1mA$	-	100	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	4.0	-	pF
Noise Figure	NF	$V_{CE} = 6V, I_C = 0.1mA, f = 1kHz, R_g = 10k\Omega$	-	1.0	10	dB

Note : h_{FE} Classification $G \square : 200 \sim 400$, In case of $G \square$, $\square : A$ to G

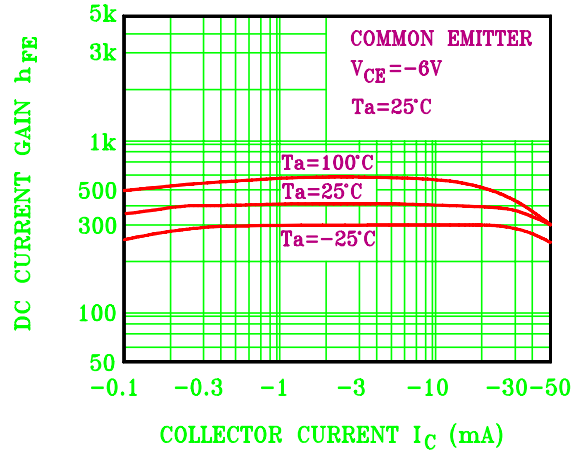
h_{FE} Classification	h_{FE}	h_{FE} Classification	h_{FE}
GA	200 ~ 220	GE	310 ~ 340
GB	220 ~ 250	GF	340 ~ 370
GC	250 ~ 280	GG	370 ~ 400
GD	280 ~ 310		

KTA2400

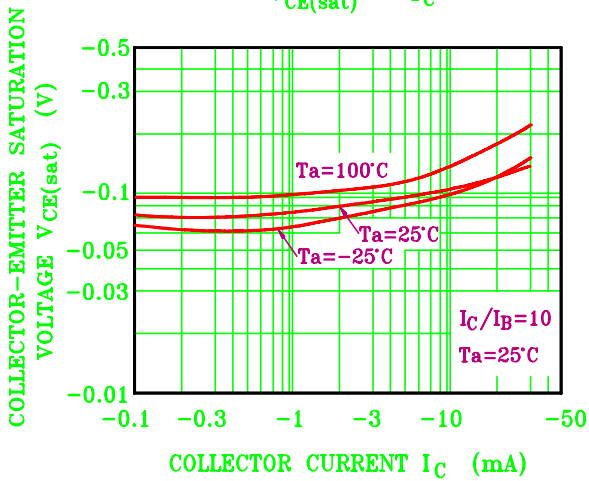
$I_C - V_{CE}$
(LOW CURRENT AND,
LOW VOLTAGE REGION)



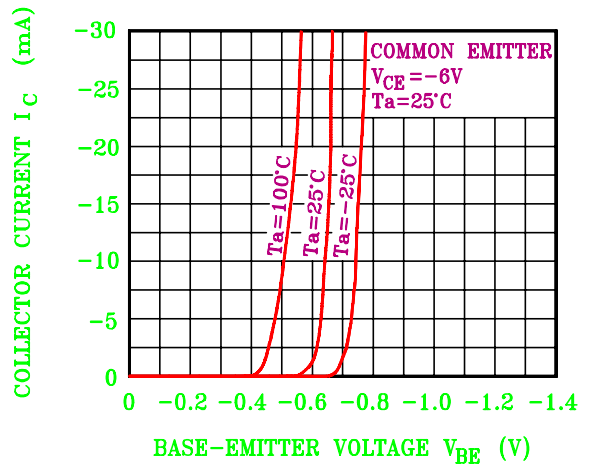
$h_{FE} - I_C$



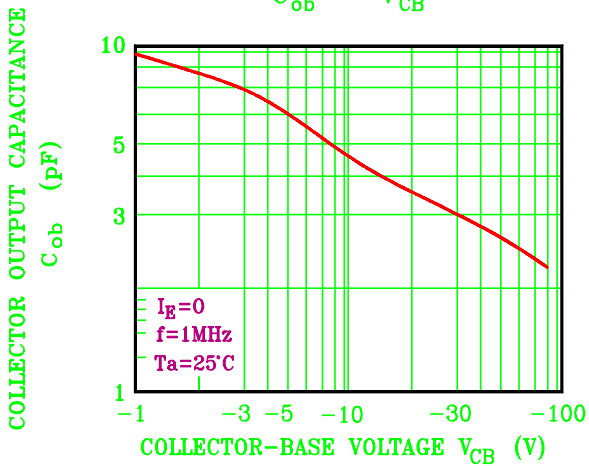
$V_{CE(sat)} - I_C$



$I_C - V_{BE}$



$C_{ob} - V_{CB}$



$P_C - T_a$

