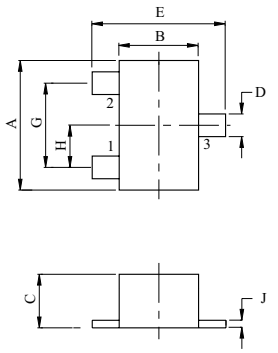
KTN2907AE

EPITAXIAL PLANAR PNP TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Low Leakage Current
  : I_{CEX}=-50nA(Max.) ; V_{CE}=-30V, V_{EB}=-0.5V.
- Low Saturation Voltage
  : $V_{CE(sat)}$=-0.4V(Max.) ; I_C=-150mA, I_B=-15mA.
- Complementary to the KTN2222AE.



DIM	MILLIMETERS
A	1.60±0.10
B	0.85±0.10
C	0.70±0.10
D	0.27+0.10/-0.05
E	1.60±0.10
G	1.00±0.10
H	0.50
J	0.13±0.05

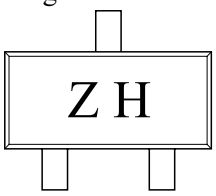
1. EMITTER
2. BASE
3. COLLECTOR

ESM

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-600	mA
Collector Power Dissipation (Ta=25℃)	P_C	100	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

Marking

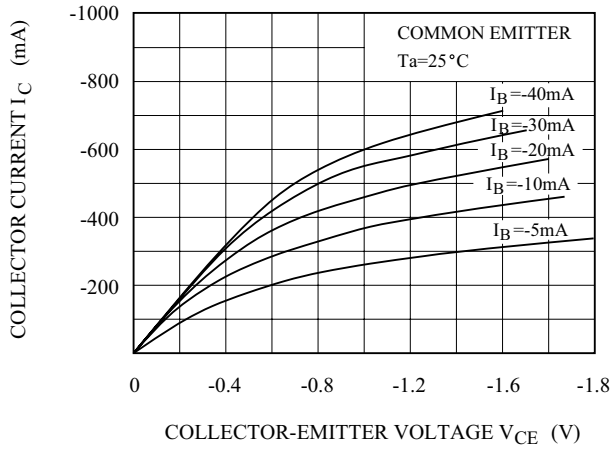


ELECTRICAL CHARACTERISTICS (Ta=25℃)

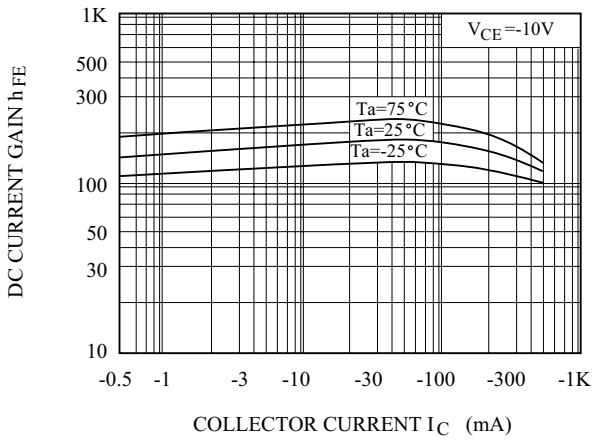
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CEX}	V_{CE}=-30V, V_{EB}=-0.5V	-	-	-50	nA
Collector Cut-off Current		I_{CBO}	V_{CB}=-50V, I_E=0	-	-	-10	nA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	I_C=-10μA, I_E=0	-60	-	-	V
Collector-Emitter Breakdown Voltage *		$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-60	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=-10μA, I_C=0	-5	-	-	V
DC Current Gain *		$h_{FE}(1)$	I_C=-0.1mA, V_{CE}=-10V	75	-	-	
		$h_{FE}(2)$	I_C=-1.0mA, V_{CE}=-10V	100	-	-	
		$h_{FE}(3)$	I_C=-10mA, V_{CE}=-10V	100	-	-	
		$h_{FE}(4)$	I_C=-150mA, V_{CE}=-10V	100	-	300	
		$h_{FE}(5)$	I_C=-500mA, V_{CE}=-10V	50	-	-	
Collector-Emitter Saturation Voltage *		$V_{CE(sat)}1$	I_C=-150mA, I_B=-15mA	-	-	-0.4	V
		$V_{CE(sat)}2$	I_C=-500mA, I_B=-50mA	-	-	-1.6	
Base-Emitter Saturation Voltage *		$V_{BE(sat)}1$	I_C=-150mA, I_B=-15mA	-	-	-1.3	V
		$V_{BE(sat)}2$	I_C=-500mA, I_B=-50mA	-	-	-2.6	
Transition Frequency		f_T	V_{CE}=-20V, I_C=-50mA, f=100MHz	200	-	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	-	8	pF
Input Capacitance		C_{ib}	V_{BE}=-2V, I_C=0, f=1.0MHz	-	-	30	pF
Switching Time	Delay Time	t_d	V_{CC}=-30V, I_C=-150mA I_{B1}=-15mA	-	-	10	nS
	Rise Time	t_r		-	-	40	
	Storage Time	t_{stg}	V_{CC}=-6V, I_C=-150mA I_{B1}=-I_{B2}=-15mA	-	-	80	
	Fall Time	t_f		-	-	30	

* Pulse Test : Pulse Width ≦300μS, Duty Cycle ≦2%.

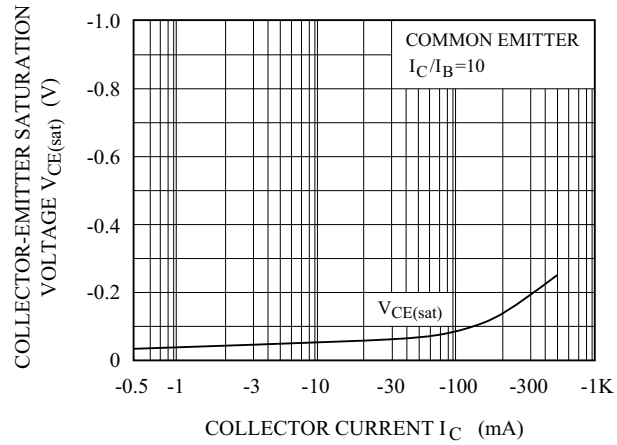
I_C - V_{CE}



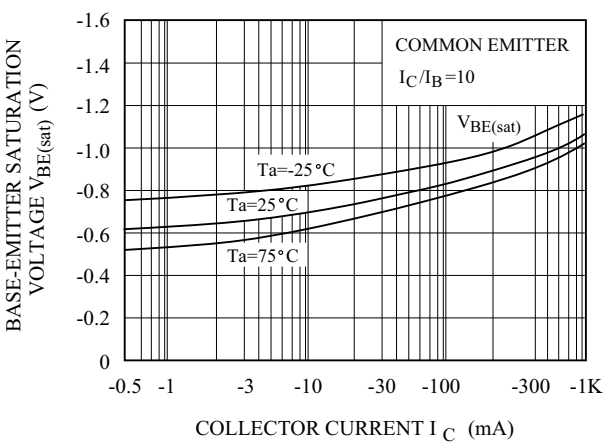
h_{FE} - I_C



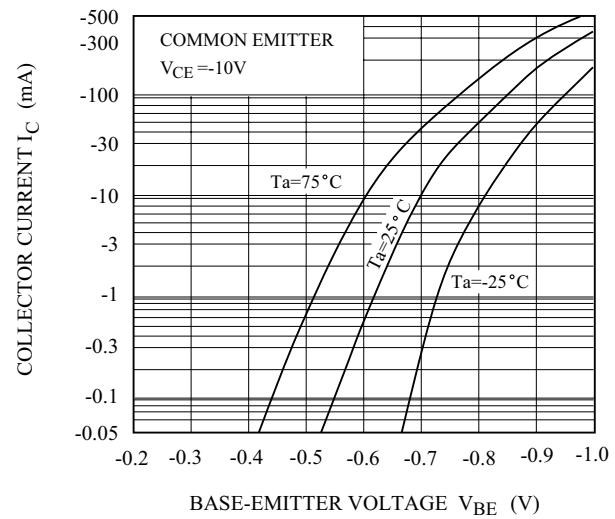
$V_{CE(sat)}$ - I_C



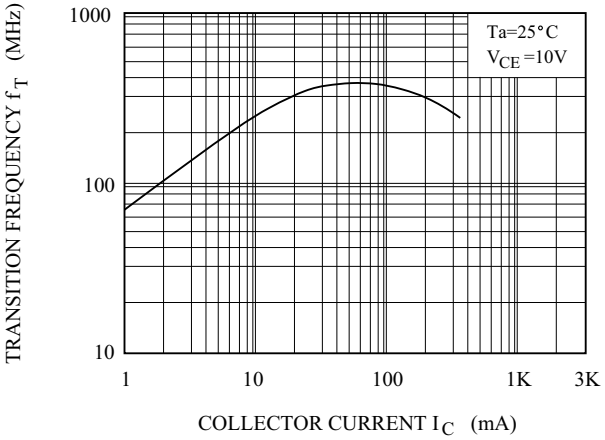
$V_{BE(sat)}$ - I_C



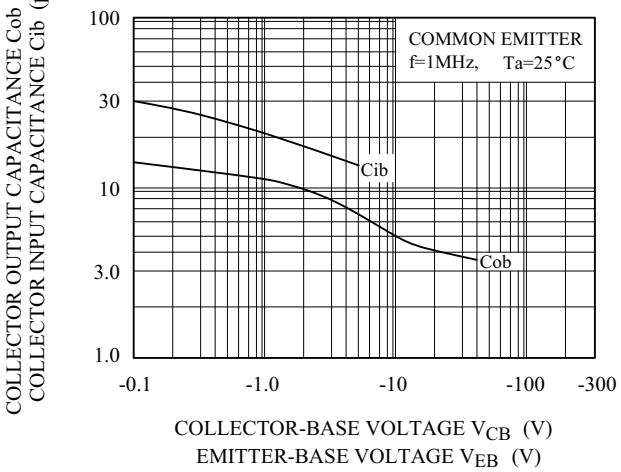
I_C - V_{BE}



f_T - I_C



Cob - V_{CB}
Cib - V_{EB}



P_C - Ta