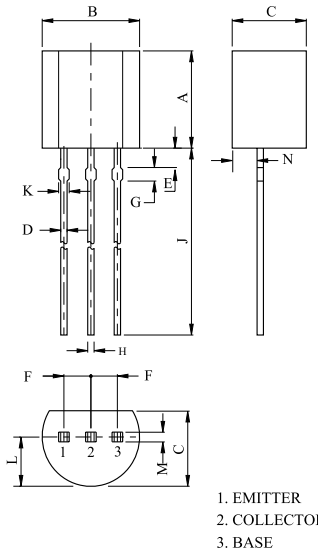
KTC3198

EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Excellent h_{FE} Linearity
  : $h_{FE}(2)$=100(Typ.) at V_{CE}=6V, I_C=150mA
  : $h_{FE}(I_C$=0.1mA)/$h_{FE}(I_C$=2mA)=0.95(Typ.).
- Low Noise : NF=1dB(Typ.). at f=1kHz.
- Complementary to KTA1266.



DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00

1. EMITTER
2. COLLECTOR
3. BASE

TO-92

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	50	mA
Collector Power Dissipation	*P_C	625	mW
		400	
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

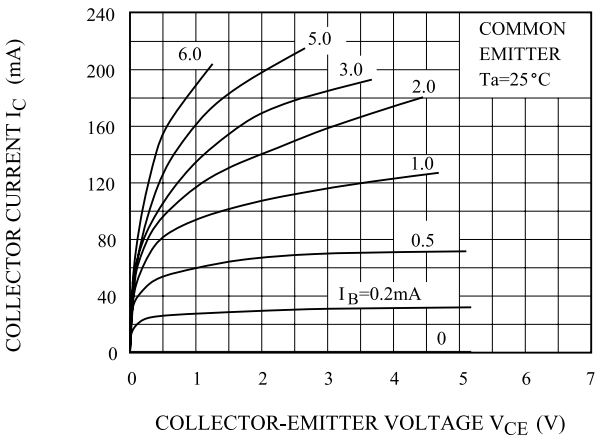
*Cu Lead-Frame : 625mW
Fe Lead-Frame : 400mW

ELECTRICAL CHARACTERISTICS (Ta=25℃)

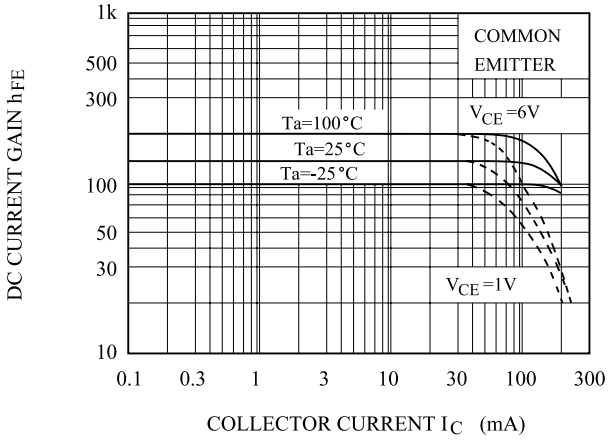
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=60V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	0.1	μA
DC Current Gain	h_{FE}(1) (Note)	V_{CE}=6V, I_C=2mA	70	-	700	
	h_{FE}(2)	V_{CE}=6V, I_C=150mA	25	100	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA	-	0.1	0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=100mA, I_B=10mA	-	-	1.0	V
Transition Frequency	f_T	V_{CE}=10V, I_C=1mA	80	-	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	2.0	3.5	pF
Base Intrinsic Resistance	rbb'	V_{CB}=10V, I_E=1mA, f=30MHz	-	50	-	Ω
Noise Figure	NF	V_{CE}=6V, I_C=0.1mA, Rg=10kΩ, f=1kHz	-	1.0	10	dB

Note : h_{FE}(1) Classification O:70 140, Y:120 240, GR:200 400, BL:300~700

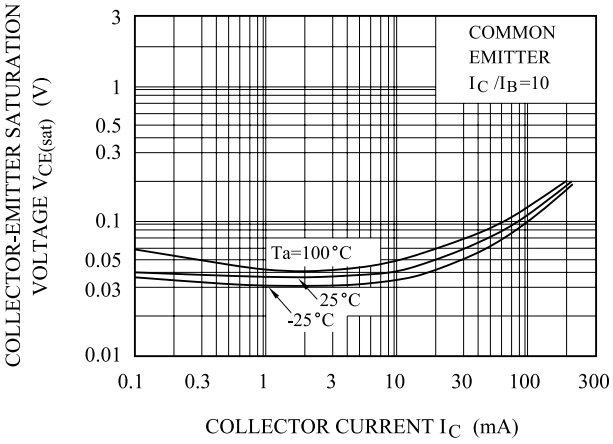
I_C - V_{CE}



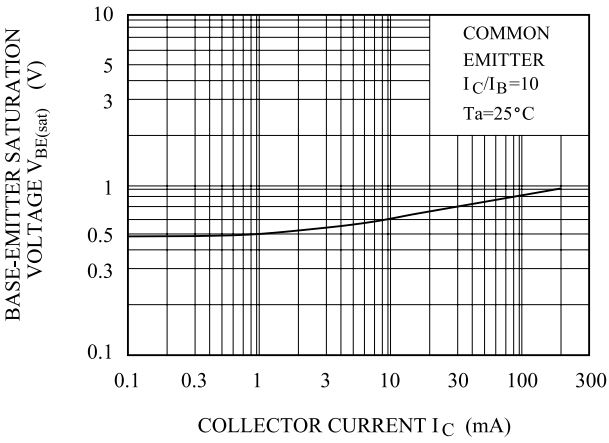
h_{FE} - I_C



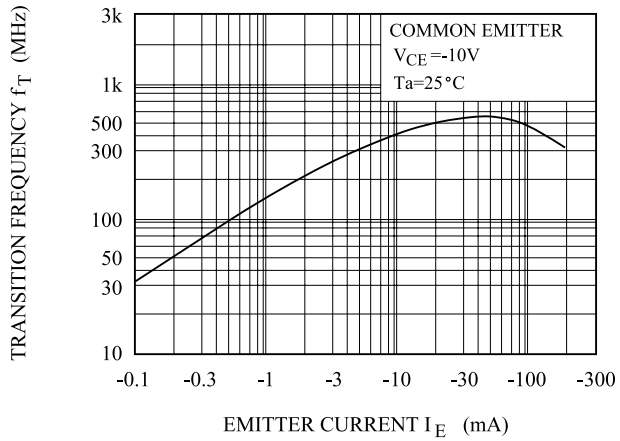
$V_{CE(sat)}$ - I_C



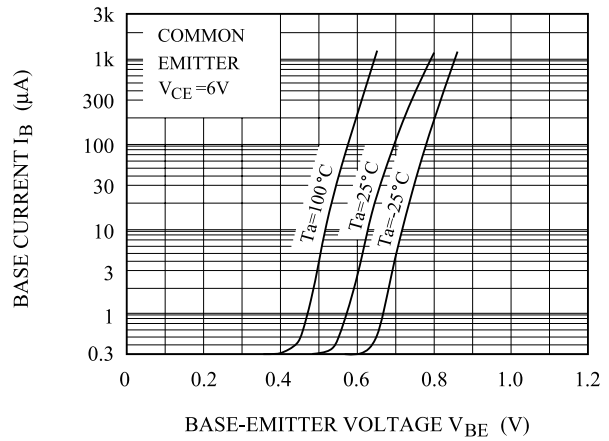
$V_{BE(sat)}$ - I_C



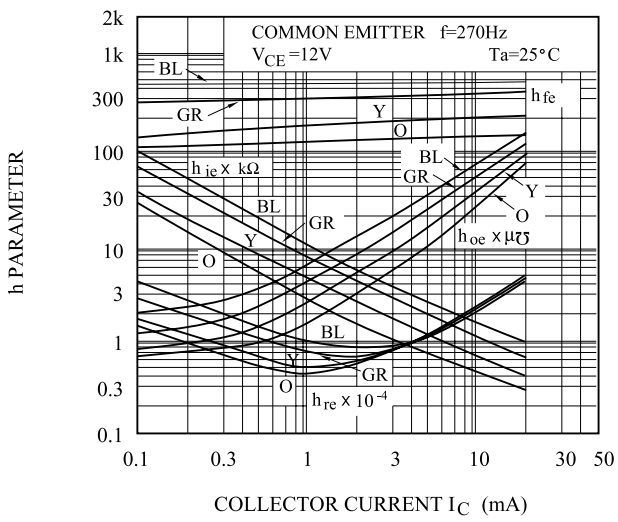
f_T - I_E



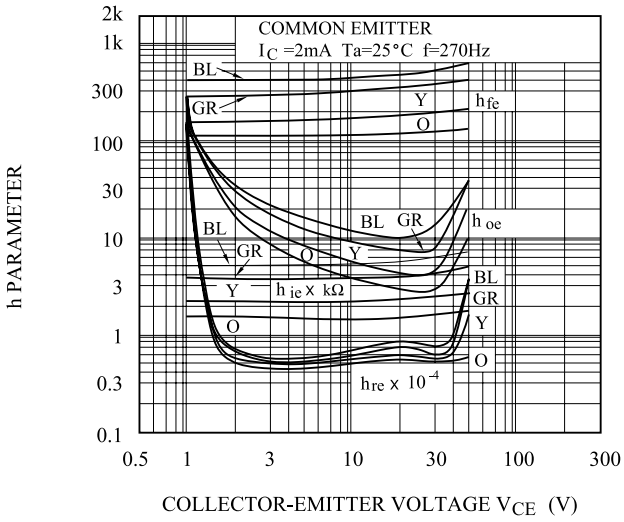
I_B - V_{BE}



h PARAMETER - I_C



h PARAMETER - V_{CE}



Pc - Ta