

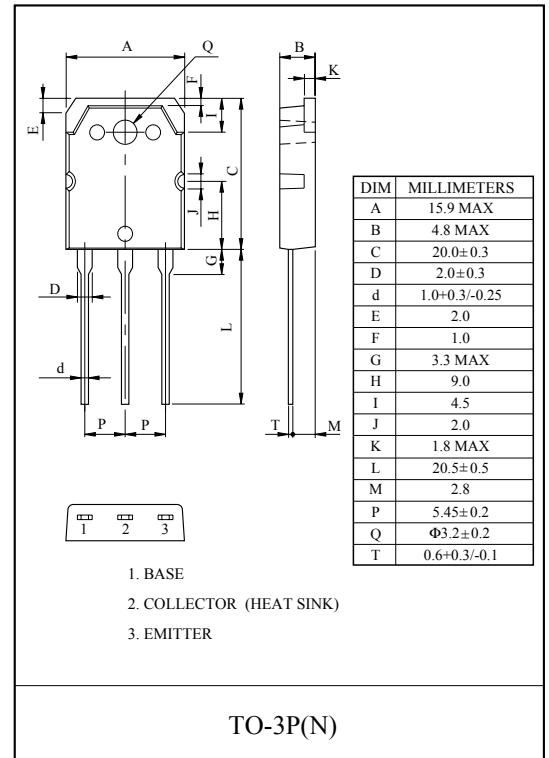
HIGH POWER AMPLIFIER APPLICATION.

FEATURES

- Complementary to KTB817.
- Recommended for 60W Audio Frequency Amplifier Output Stage.

MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	160	V
Collector-Emitter Voltage		V_{CE0}	140	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	12	A
	Pulse	I_{CP}	15	
Collector Power Dissipation (Tc=25°C)		P_C	100	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C



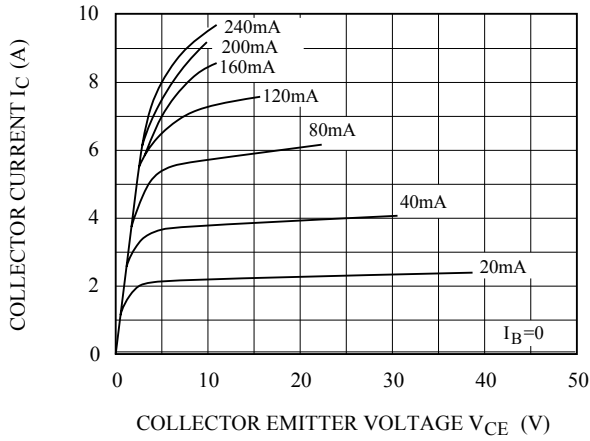
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=80V, I_E=0$	-	-	0.1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4V, I_C=0$	-	-	0.1	mA
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5V, I_C=1A$	60	-	200	
	$h_{FE 2}$	$V_{CE}=5V, I_C=6A$	20	-		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$	-	-	2.5	V
Base-Emitter Voltage	$V_{BE(ON)}$	$V_{CE}=5V, I_C=1A$	-	-	1.5	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=1A$	-	15	-	MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	210	-	pF
Turn On Time	t_{on}	$V_{CC}=20V$	-	0.26	-	μS
Fall Time	t_f	$I_C=1A=10 \cdot I_{B1}=-10 \cdot I_{B2}$	-	0.68	-	
Storage Time	t_{stg}	$R_L=20\Omega$	-	6.88	-	

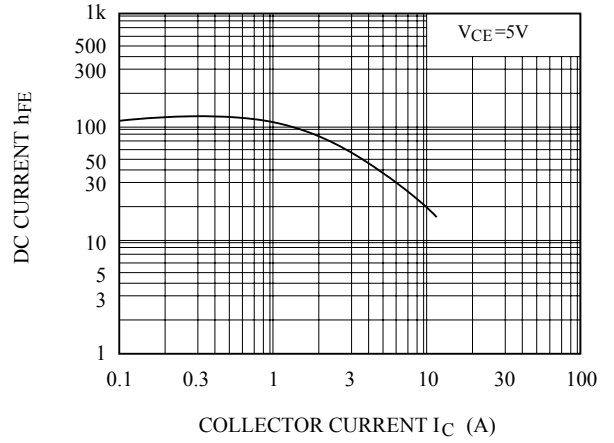
Note : $h_{FE(1)}$ Classification O:60 ~ 120, Y:100 ~ 200

KTD1047

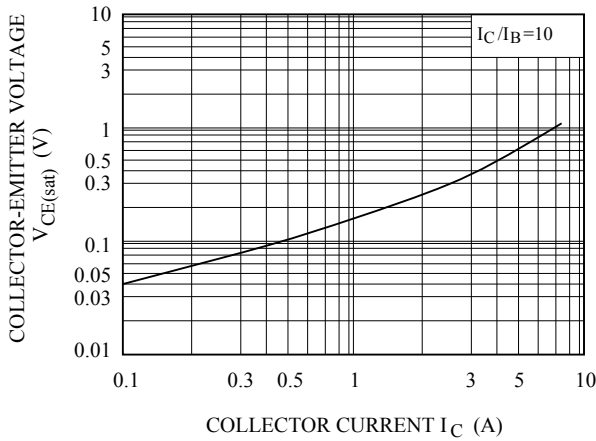
$I_C - V_{CE}$



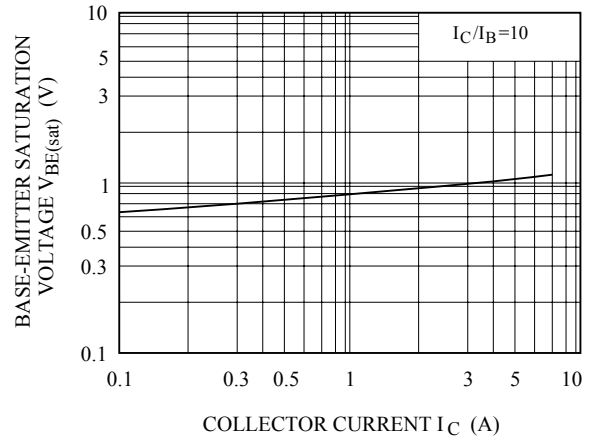
$h_{FE} - I_C$



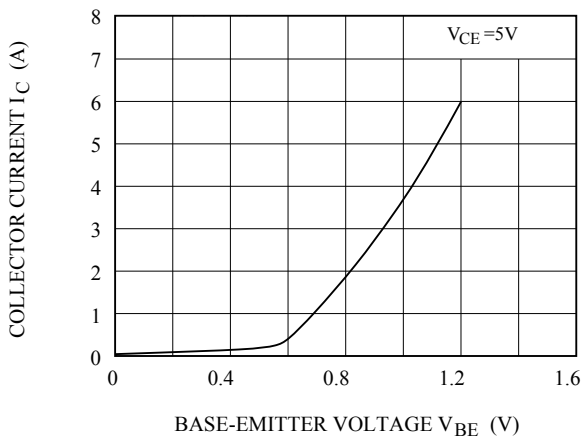
$V_{CE(sat)} - I_C$



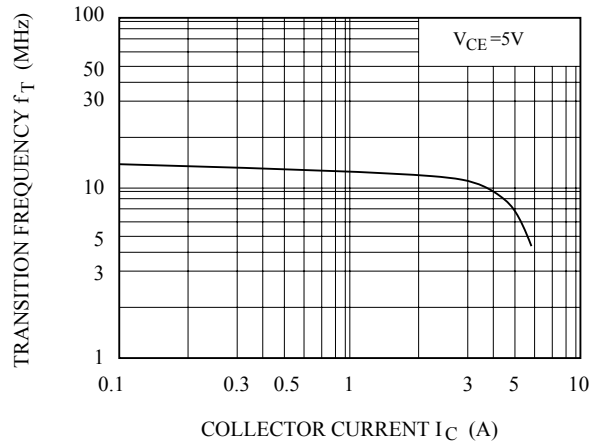
$V_{BE(sat)} - I_C$



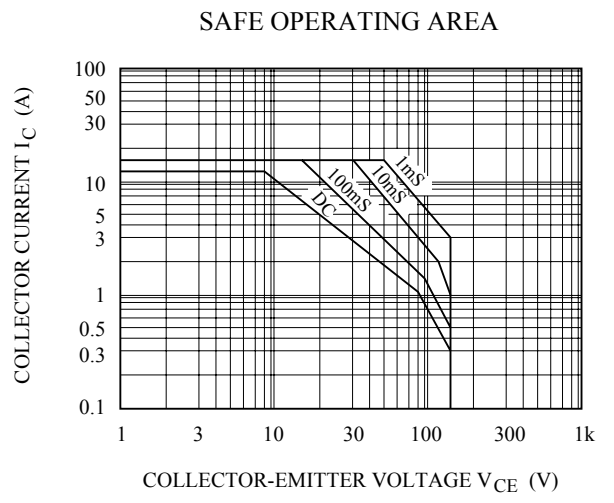
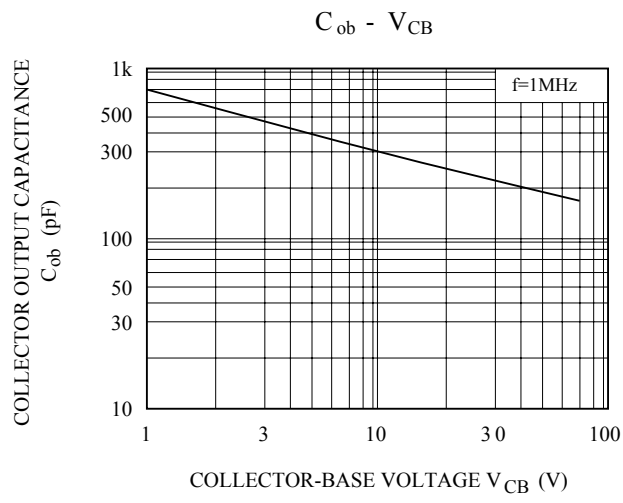
$I_C - V_{BE}$



$f_T - I_C$



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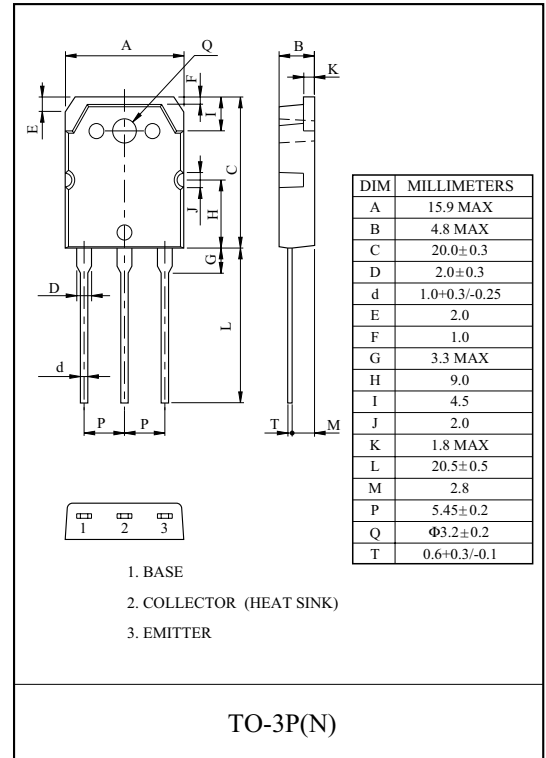
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FEATURES

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Collector-Emitter Voltage	V_{CE0}	-140	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	DC	I_C	-12
	Pulse	I_{CP}	-15
Collector Power Dissipation (Tc=25 °C)	P_C	100	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

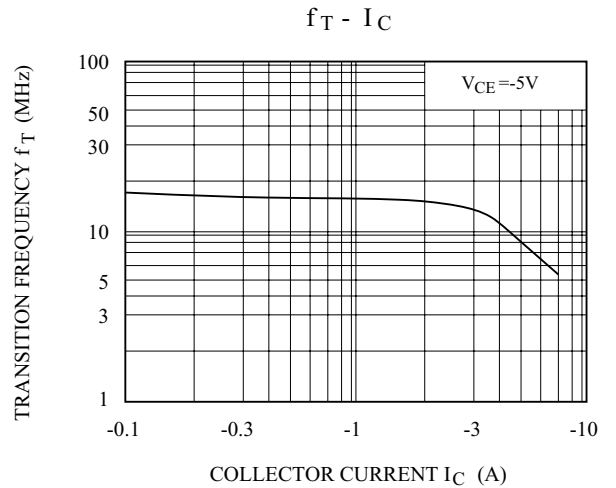
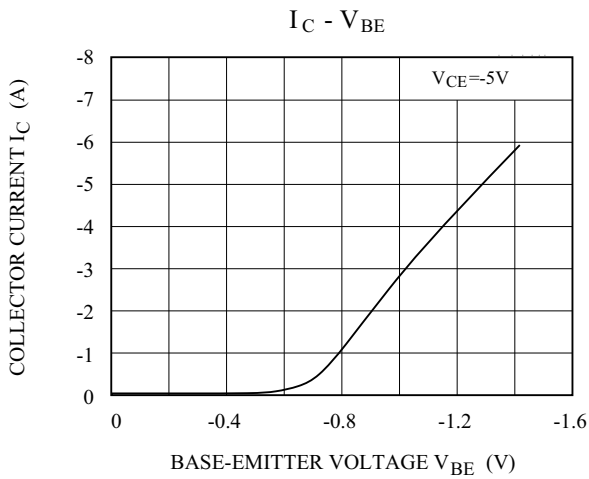
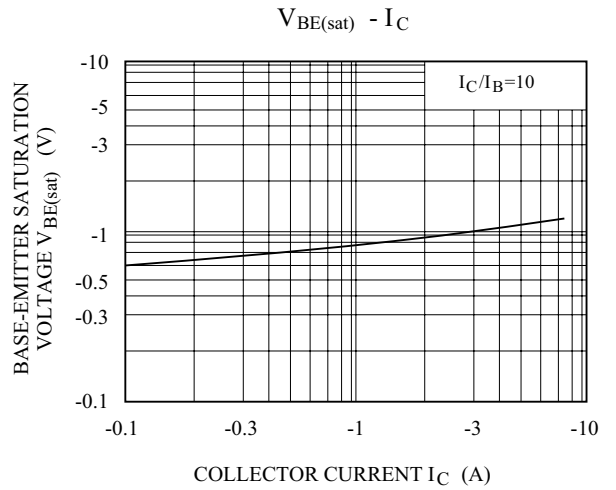
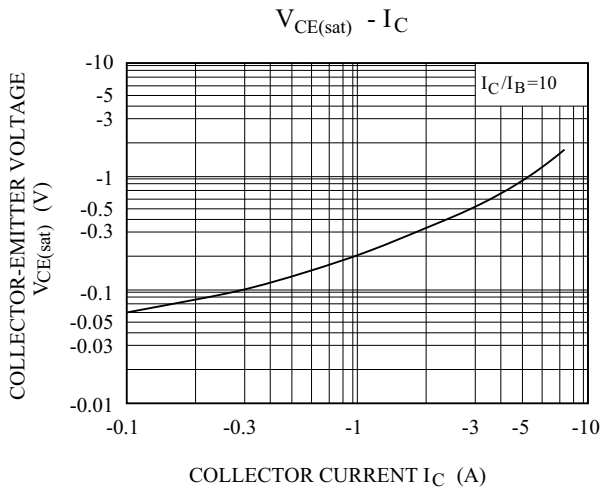
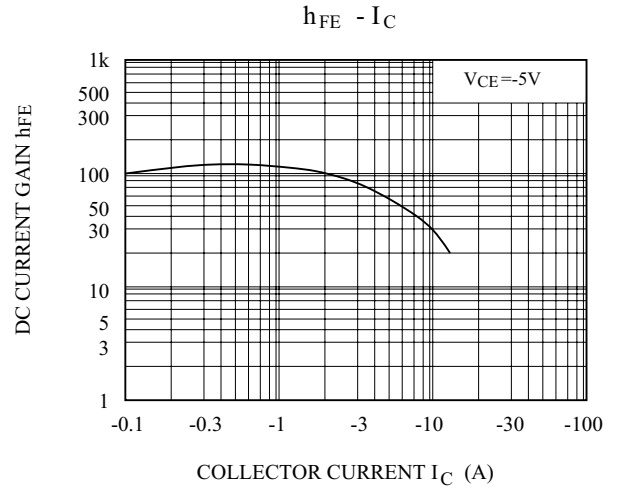
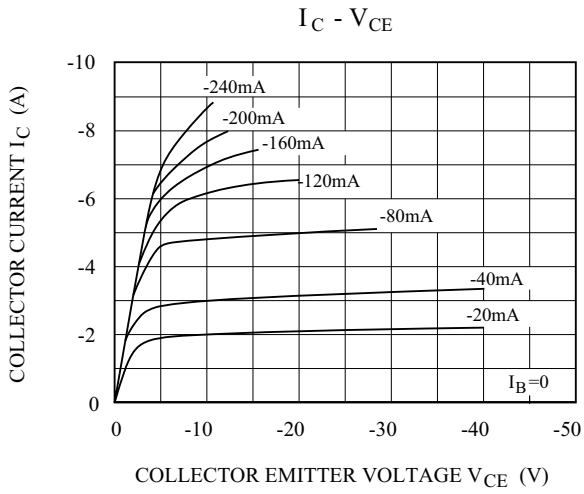


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

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Emitter Cut-off Current	I_{EBO}	$V_{EB}=-4V, I_C=0$	-	-	-0.1	mA
DC Current Gain	h_{FE} (1) (Note)	$V_{CE}=-5V, I_C=-1A$	60	-	200	
	h_{FE} 2	$V_{CE}=-5V, I_C=-6A$	20	-		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-5A, I_B=-0.5A$	-	-	-2.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-5V, I_C=-1A$	-	-	-1.5	V
Transition Frequency	f_T	$V_{CE}=-5V, I_C=-1A$	-	15	-	MHz
Output Capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$	-	300	-	pF
Turn On Time	t_{on}	$V_{CC}=-20V$	-	0.25	-	μs
Fall Time	t_f	$I_C=1A=10 \cdot I_{B1}=-10 \cdot I_{B2}$	-	0.53	-	
Storage Time	t_{stg}	$R_L=20 \Omega$	-	1.61	-	

Note : h_{FE} (1) Classification O:60 ~120, Y:100 ~200

KTB817



KTB817

