

SEMICONDUCTOR TECHNICAL DATA

KTB772

EPITAXIAL PLANAR NPN TRANSISTOR

AUDIO FREQUENCY POWER AMPLIFIER
LOW SPEED SWITCHING

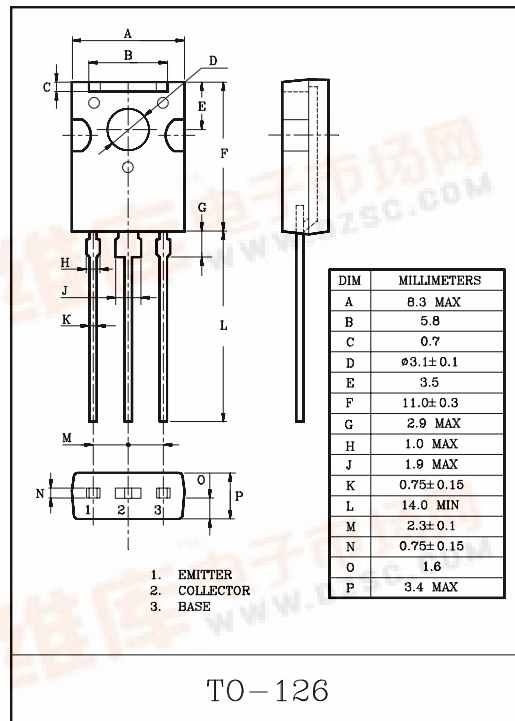
FEATURES

- Complementary to KTD882.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	DC	-3
		Pulse (Note)	-7
Base Current (DC)	I_B	-0.6	A
Collector Power Dissipation	P_C	Ta=25°C	1.5
		Tc=25°C	10
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Note : Pulse Width $\leq 10\text{ms}$, Duty Cycle $\leq 50\%$.



ELECTRICAL CHARACTERISTICS (Ta=25°C)

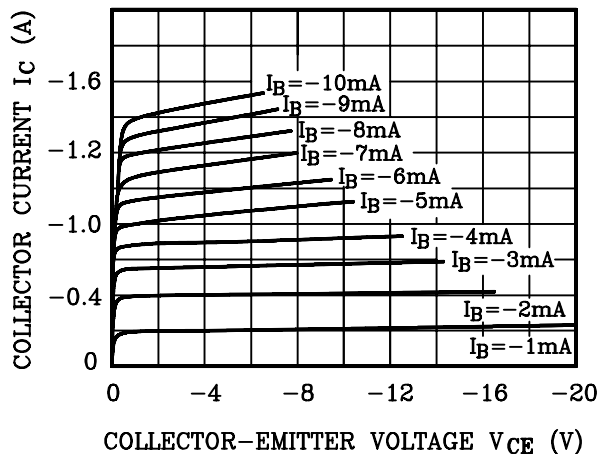
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$	-	-	-1	μA
Emitter-Cut-off Current	I_{EBO}	$V_{EB} = -3\text{V}, I_C = 0$	-	-	-1	μA
DC Current Gain *	$h_{FE(1)}$	$V_{CE} = -2\text{V}, I_C = -20\text{mA}$	30	220	-	
	$h_{FE(2)}$ (Note)	$V_{CE} = -2\text{V}, I_C = -1\text{A}$	100	160	400	
Collector-Emitter Saturation Voltage *	$V_{CE(sat)}$	$I_C = -2\text{A}, I_B = -0.2\text{A}$	-	-0.3	-0.5	V
Base-Emitter Saturation Voltage *	$V_{BE(sat)}$	$I_C = -2\text{V}, I_B = -0.2\text{A}$	-	-1.0	-2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -5\text{V}, I_C = -0.1\text{A}$	-	80	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$	-	55	-	pF

* Pulse Test : Pulse Width $\leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$ Pulsed

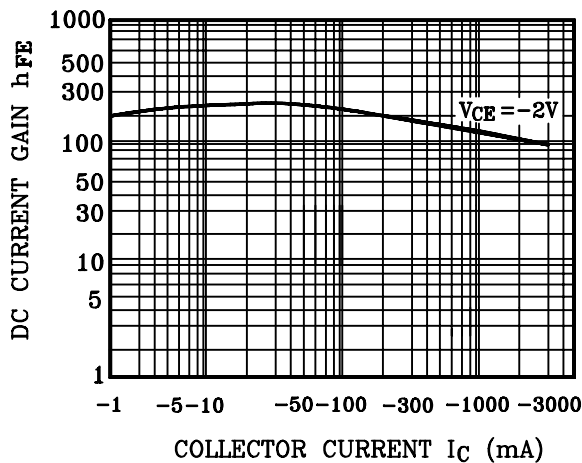
Note: $h_{FE(2)}$ Classification O:100~200, Y:160~320, GR:200~400

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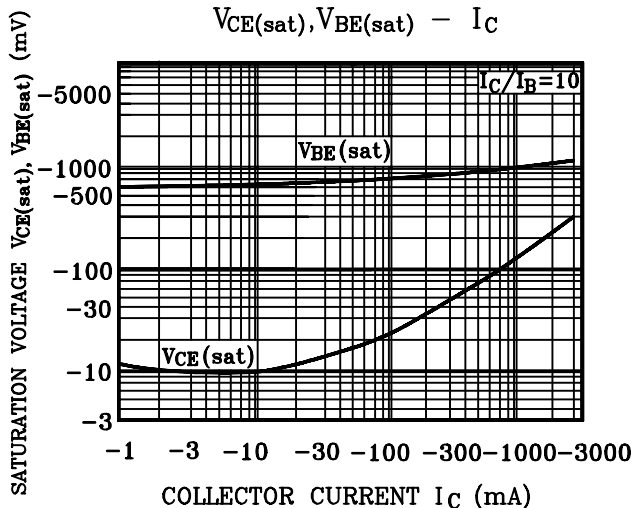
$I_C - V_{CE}$



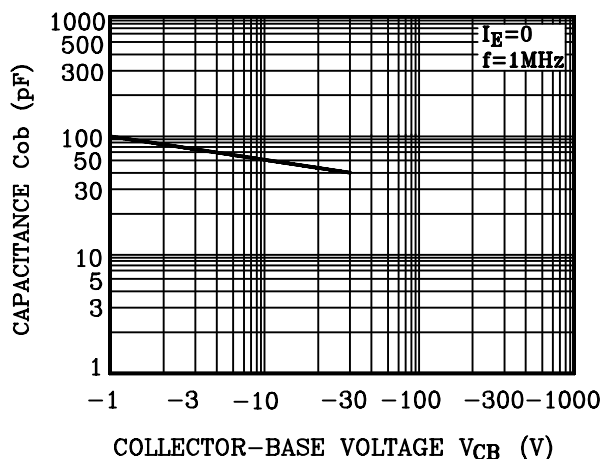
$h_{FE} - I_C$



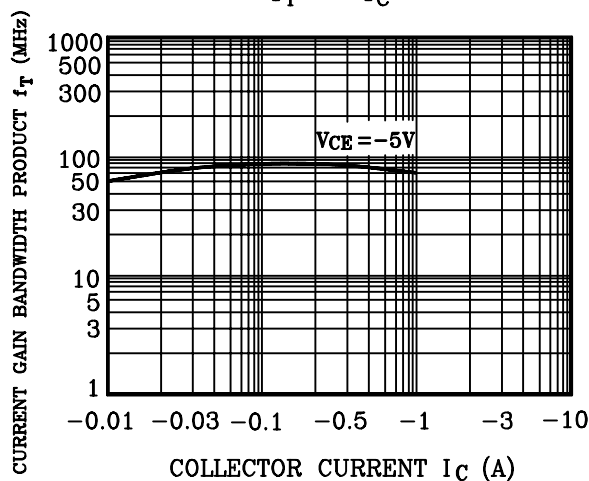
$V_{CE(sat)}, V_{BE(sat)} - I_C$



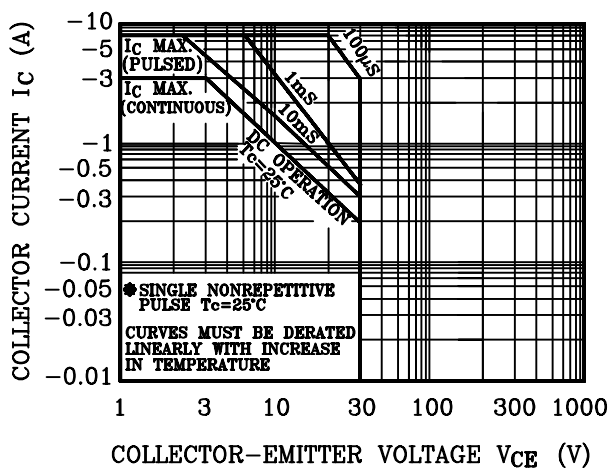
$f_T - I_C$



$f_T - I_C$



SAFE OPERATING AREA



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