

AUDIO FREQUENCY POWER AMPLIFIER  
LOW SPEED SWITCHING

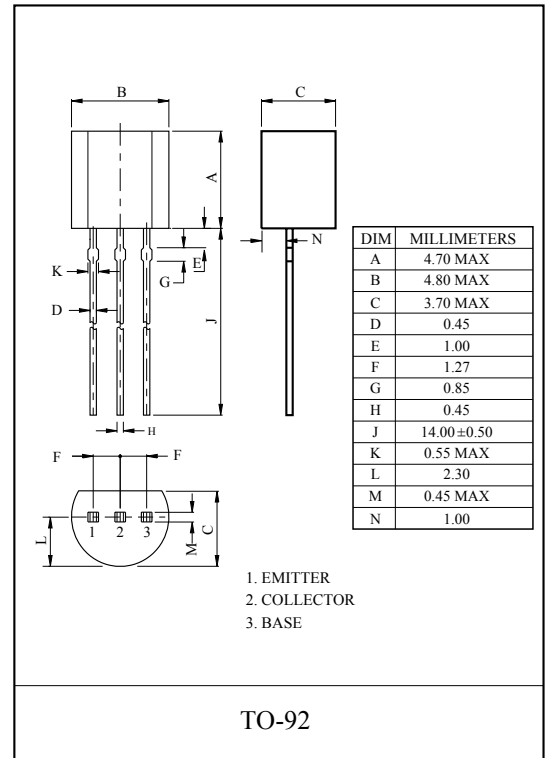
### FEATURES

- Complementary to KTB1772.

### MAXIMUM RATING (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	DC	$I_C$	3	A
	Pulse (Note)	$I_{CP}$	7	
Base Current (DC)		$I_B$	0.6	A
Collector Power Dissipation		$P_C$	625	mW
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C

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



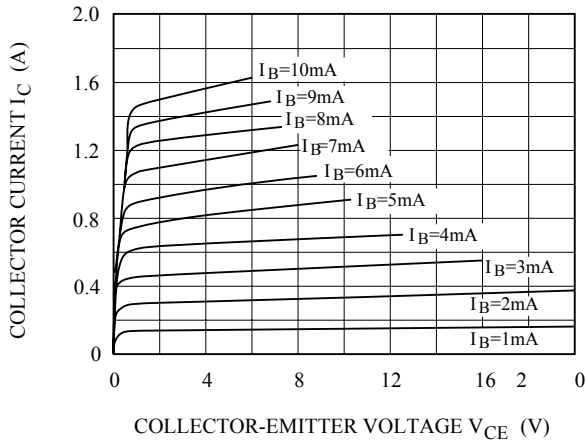
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$	-	-	1	$\mu\text{A}$
Emitter-Cut-off Current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$	-	-	1	$\mu\text{A}$
DC Current Gain *	$h_{FE}(1)$	$V_{CE}=2\text{V}, I_C=20\text{mA}$	30	150	-	
	$h_{FE}(2)$ (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	$f_T$	$V_{CE}=5\text{V}, I_C=0.1\text{A}$	-	90	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	-	45	-	pF

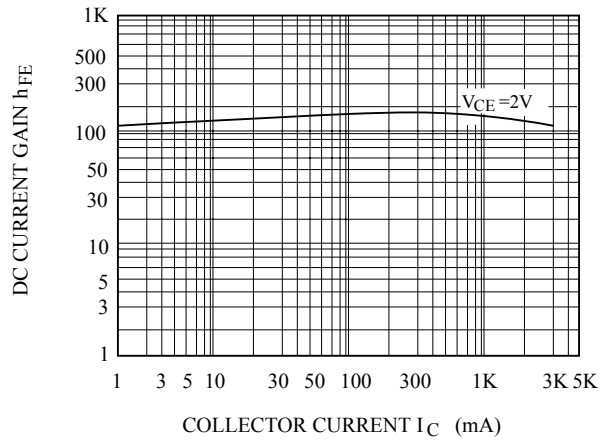
\* Pulse Test : Pulse Width  $\leq 350\mu\text{s}$ , Duty Cycle  $\leq 2\%$  Pulsed

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

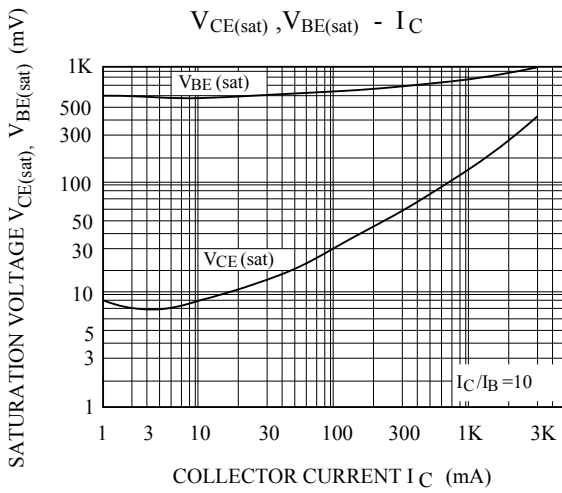
$I_C - V_{CE}$



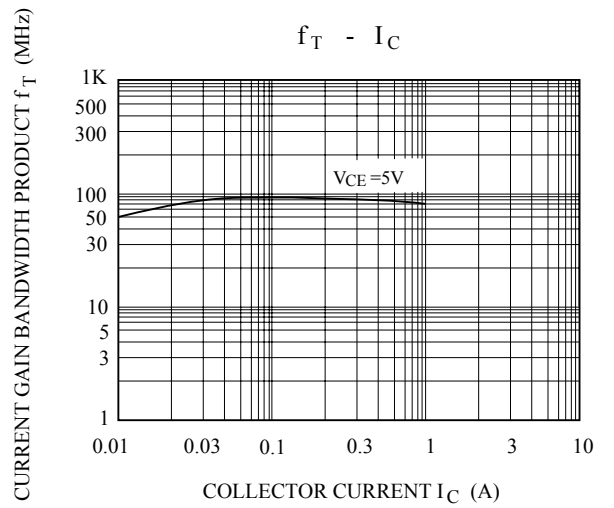
$h_{FE} - I_C$



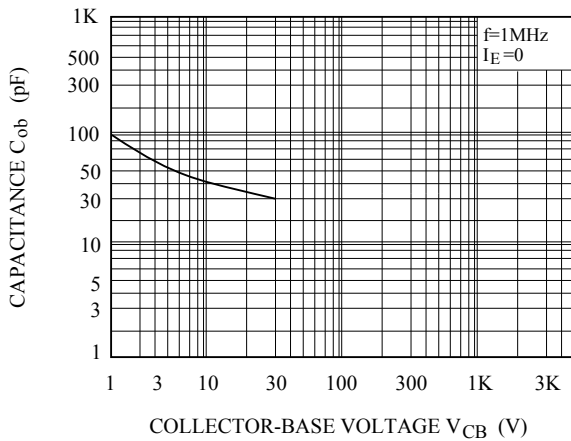
$V_{CE(sat)}, V_{BE(sat)} - I_C$



$f_T - I_C$



$C_{ob} - V_{CB}$



$P_C - T_a$

