

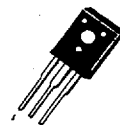
AUDIO FREQUENCY POWER AMPLIFIER LOW SPEED SWITCHING

- Complement to 2SB772

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	30	V
Emitter-Bias Voltage	V_{EB0}	5	V
Collector Current (DC)	I_C	3	A
*Collector Current (Pulse)	I_C	7	A
Base Current (DC)	I_B	0.6	A
Collector Dissipation ($T_a=25^\circ\text{C}$)	P_C	10	W
Collector Dissipation ($T_a=25^\circ\text{C}$)	P_C	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

TO-18



1. Emitter 2. Collector 3. Base

- $PW \leq 10\text{ms}$, Duty Cycle $\leq 50\%$

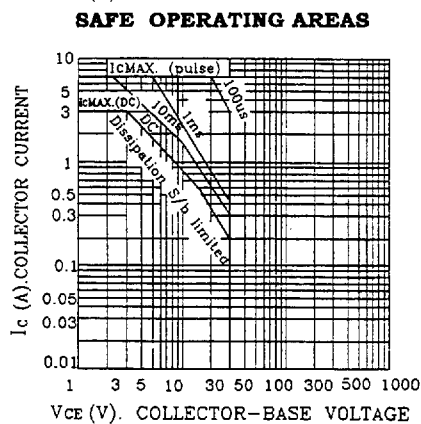
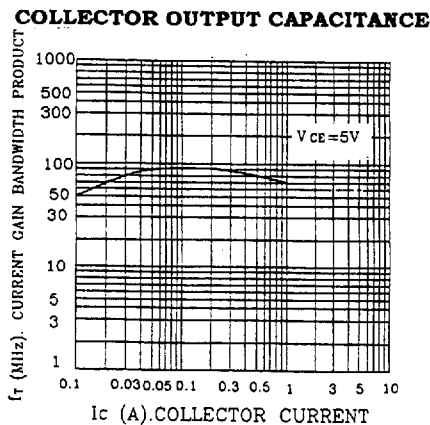
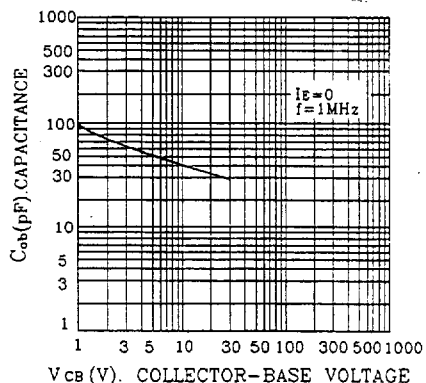
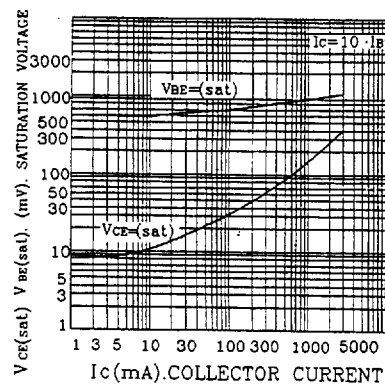
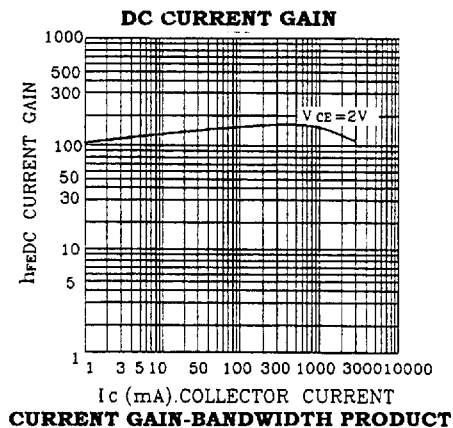
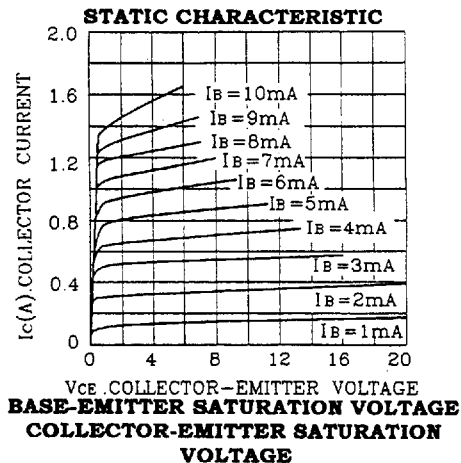
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Characteristics	Symbol	Test condition	Min	Typ	Min	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			1	μA
*DC Current Gain	h_{FE1}	$V_{CE}=2\text{V}, I_C=20\text{mA}$	30	150		
	h_{FE2}	$V_{CE}=2\text{V}, I_C=1\text{A}$	60	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	$V_{BE(SAT)}$	$I_C=2\text{A}, I_B=0.2\text{A}$		1.0	2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=0.1\text{A}$		90		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0$ $f=1\text{MHz}$		45		pF

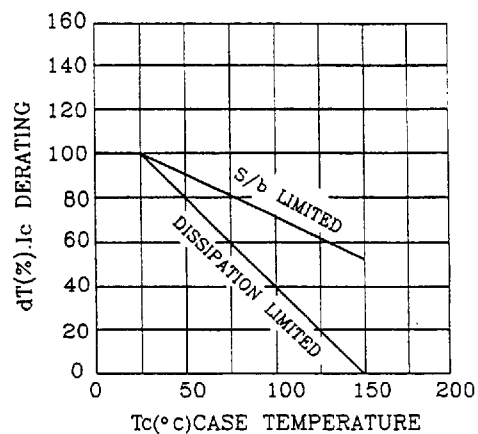
- Pulse Test $PW \leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$

$h_{FE}(2)$ CLASSIFICATION

Classification	R	O	Y	G
$h_{FE}(2)$	60-120	100-200	160-320	200-400



DERATING CURVE OF SAFE OPERATING AREAS



POWER DERATING

