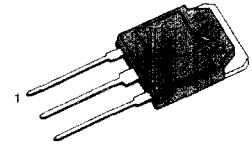
AUDIO POWER AMPLIFIER
DC TO DC CONVERTER

- High Current Capability
- High Power Dissipation
- Complementary to KSD1047

TO-3P



1. Base 2. Collector 3. Emitter

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	- 160	V
Collector Emitter Voltage	V_{CEO}	- 140	V
Emitter Base Voltage	V_{EBO}	- 6	V
Collector Current (DC)	I_C	- 12	A
Collector Current (Pulse)	I_C	- 15	A
Collector Dissipation (T_C=25℃)	P_C	100	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	- 40 ~ 150	℃

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ELECTRICAL CHARACTERISTICS (T_C=25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Base Breakdown Voltage	BV_{CBO}	I_C = - 5mA, I_E = 0	- 160			V
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C = - 10mA, R_{BE} = ∞	- 140			V
Emitter Base Breakdown Voltage	BV_{EBO}	I_E = - 5mA, I_C = 0	-6			V
Collector Cutoff Current	I_{CBO}	V_{CB} = - 80V, I_E = 0			- 0.1	mA
Emitter Cutoff Current	I_{EBO}	V_{BE} = - 4V, I_C = 0			- 0.1	mA
* DC Current Gain	h_{FE1}	V_{CE} = - 5V, I_C = - 1A	60		200	
	h_{FE2}	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 On Voltage	V_{BE}(on)	V_{CE} = - 5V, I_C = - 1A			- 1.5	V
Current Gain Bandwidth Product	f_T	V_{CE} = - 5V, I_C = - 1A		15		MHz
Output Capacitance	C_{OB}	V_{CB} = - 10V, f = 1MHz		300		pF
Turn On Time	t_{ON}	V_{CC} = 20V		0.25		uS
Fall Time	t_F	I_C = 1A = 10 · I_B1 = - 10 · I_B2,		0.53		uS
Storage Time	t_{STG}	RL = 20Ω		1.61		uS

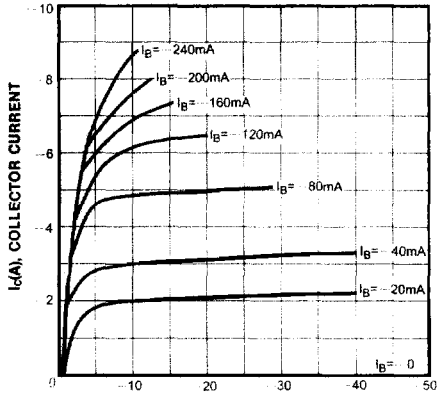
* Pulse Test : PW = 20uS

h_{FE}(1) CLASSIFICNTION

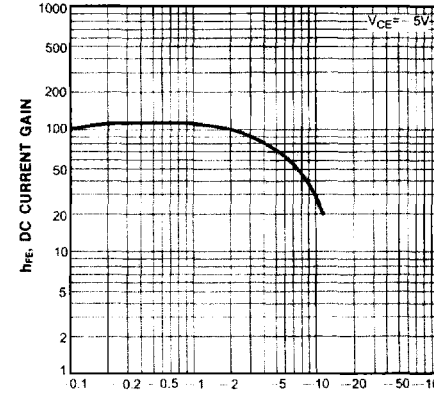
Classification	O	Y
h_{FE}(1)	60~120	100~200

SAMSUNG ELECTRONICS

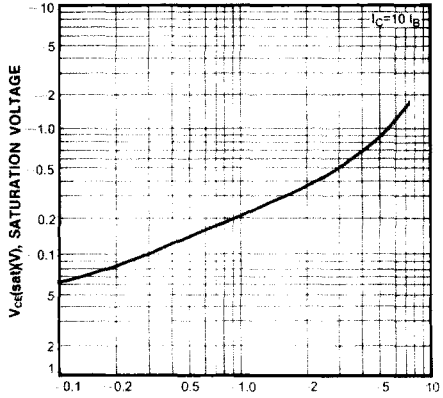
STATIC CHARACTERISTIC



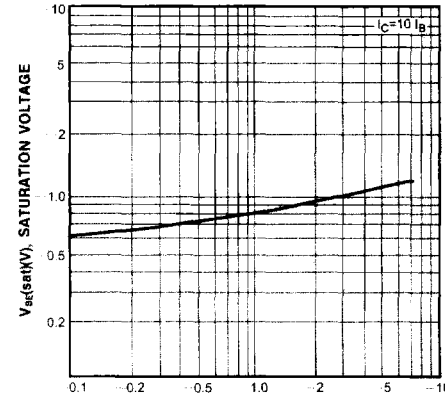
DE CURRENT GAIN



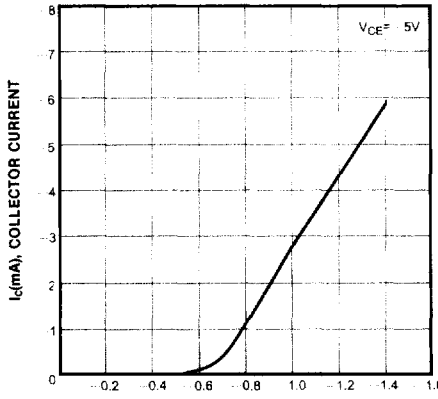
COLLECTOR EMITTER SATURATION VOLTAGE



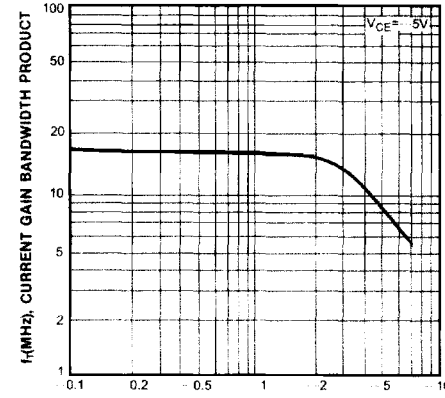
BASE EMITTER SATURATION VOLTAGE



BASE EMITTER ON VOLTAGE

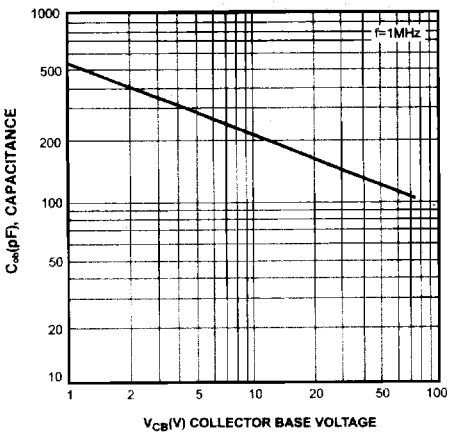


CURRENT GAIN BANDWIDTH PRODUCT

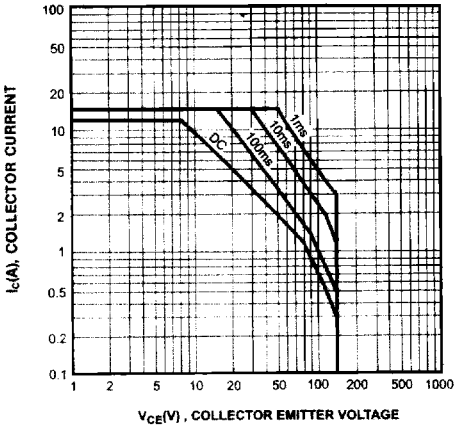


SAMSUNG ELECTRONICS

COLLECTOR OUTPUT CAPACITANCE



SAFE OPERATING AREA



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