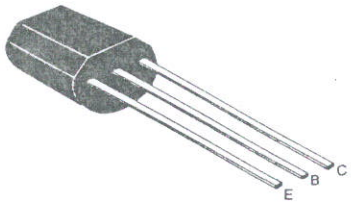
TRANSISTOR 三極管(SOUTH KOREA SEMICONDUCTOR)

SK8050



TO-92

2W OUTPUT AMPLIFIER OF PORTABLE RADIOS IN CLASS B PUSH-PULL OPERATION

- Complementary to SK8550
- Collector Current I_C=1.5A
- Collector Dissipation P_C=2W (P_C=25°C)

CLASSIFICATION h_{FE} (2)

Classification	B	C	D
h_{FE} (2)	85-160	120-200	160-300

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1.5	A

Characteristic	Symbol	Rating	Unit
Collector Dissipation	P_C	1	W
Junction Temperature	T_J	150	°C
Storage Temperature	Tstg	−65~150	°C

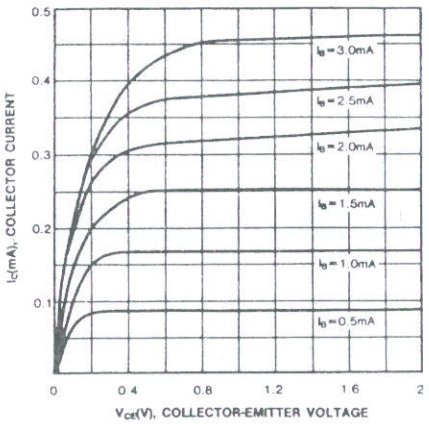
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CBO}	40			V	I_C=100μA, I_E=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	25			V	I_C=2mA, I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	6			V	I_E=100μA, I_C=0
Collector Cutoff Current	I_{CBO}			100	nA	V_{CB}=35V, I_E=0
Emitter Cutoff Current	I_{EBO}			100	nA	V_{EB}=6V, I_C=0
DC Current Gain	$h_{FE}1$	45	135			V_{CE}=1V, I_C=5mA
	$h_{FE}2$	85	160	300		V_{CE}=1V, I_C=100mA
	$h_{FE}3$	40	110			V_{CE}=1V, I_C=800mA
Collector-Emitter Saturation Voltage	V_{CE} (sat)		0.28	0.5	V	I_C=800mA, I_B=80mA
Base-Emitter Saturation Voltage	V_{BE} (sat)		0.98	1.2	V	I_C=800mA, I_B=80mA
Base-Emitter Voltage	V_{BE}		0.66	1	V	V_{CE}=1V, I_C=10mA
Output Capacitance	C_{ob}		9.0		pF	V_{CB}=10V, I_E=0, f=1MHz
Current Gain-Bandwidth Product	f_T	100	190		MHz	V_{CE}=10V, I_C=50mA

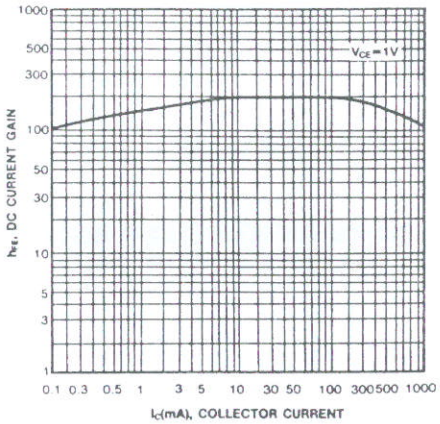
TRANSISTOR 三極管(SOUTH KOREA SEMICONDUCTOR)

SK8050

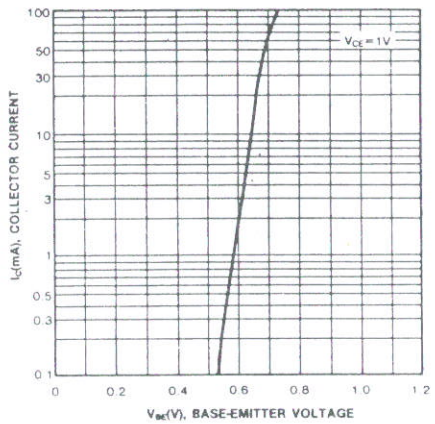
STATIC CHARACTERISTIC



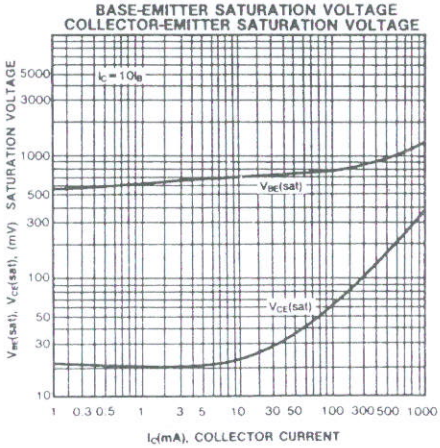
DC CURRENT GAIN



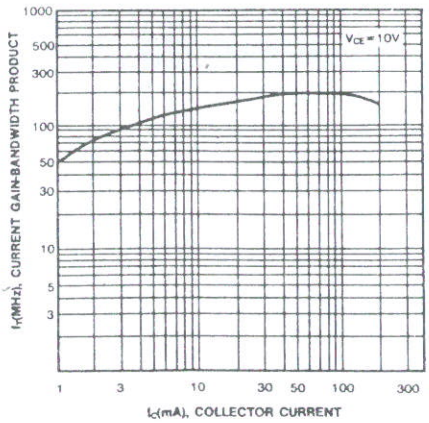
BASE-EMITTER ON VOLTAGE



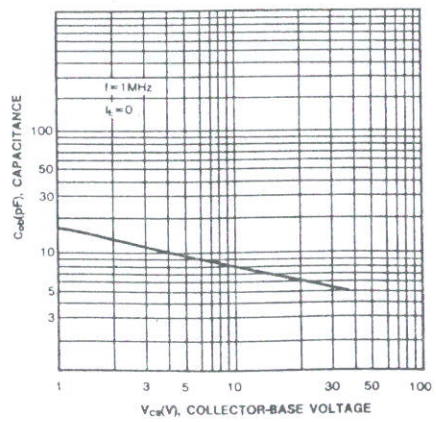
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE



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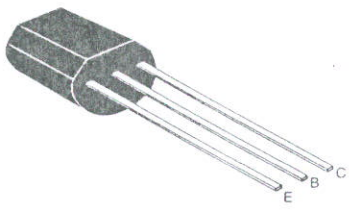

TO-92

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- Complimentary to SK8050
- Collector Current: I_C=−1.5A
- Collector Dissipation: P_C=2W (P_C=25°C)

CLASSIFICATION hFE (2)

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hFE (2)	85-160	120-200	160-300

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
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Collector-Emitter Voltage	V_{CEO}	−25	V
Emitter-Base Voltage	V_{EBO}	−6	V
Collector Current	I_C	−1.5	A

Characteristic	Symbol	Rating	Unit
Collector Dissipation	P_C	1	W
Junction Temperature	T_j	150	°C
Storage Temperature	Tstg	−65~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CBO}	−40			V	I_C=−100μA, I_B=0
Collector-Emitter Breakdown Voltage	BV_{CEO}	−25			V	I_C=−2mA, I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	−6			V	I_E=−100μA, I_C=0
Collector Cutoff Current	I_{CBO}			−100	nA	V_{CB}=−35V, I_E=0
Emitter Cutoff Current	I_{EBO}			−100	nA	V_{EB}=−6V, I_C=0
DC Current Gain	$h_{FE}1$	45	170			V_{CE}=−1V, I_C=−5mA
	$h_{FE}2$	85	160	300		V_{CE}=−1V, I_C=−100mA
	$h_{FE}3$	40	80			V_{CE}=−1V, I_C=−800mA
Collector-Emitter Saturation Voltage	V_{CE} (sat)		−0.28	−0.5	V	I_C=−800mA, I_B=−80mA
Base-Emitter Saturation Voltage	V_{BE} (sat)		−0.98	−1.2	V	I_C=−800mA, I_B=−80mA
Base-Emitter Voltage	V_{BE}		−0.66	−1.0	V	V_{CE}=−1V, I_C=−10mA
Output Capacitance	C_{ob}		15		pF	V_{CB}=−10V, I_E=0, f=1MHz
Current Gain-Bandwidth Product	f_T	100	200		MHz	V_{CE}=−10V, I_C=−50mA