

SAMSUNG SEMICONDUCTOR INC

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T-29-19

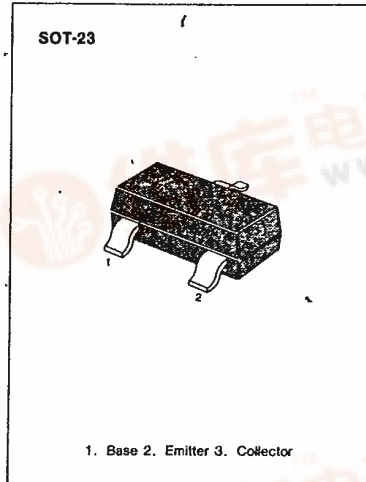
MMBT5086

PNP EPITAXIAL SILICON TRANSISTOR

LOW NOISE TRANSISTOR

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	50	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter-Base Voltage	V _{EB0}	3	V
Collector Current	I _C	50	mA
Collector Dissipation	P _C	350	mW
Storage Temperature	T _{stg}	150	°C

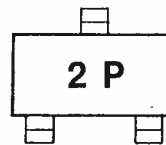


ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	BV _{CB0}	I _C = 100μA, I _E = 0	50		V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = 1mA, I _B = 0	50		V
Collector Cutoff Current	I _{CB0}	V _{CB} = 35V, I _E = 0		50	nA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 100μA	150	500	
		V _{CE} = 5V, I _C = 1mA	150		
		V _{CE} = 5V, I _C = 10mA	150		
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 10mA, I _B = 1mA		0.3	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = 10mA, I _B = 1mA		0.85	V
Current Gain-Bandwidth Product	f _T	I _C = 500μA, V _{CE} = 5V f = 20MHz	40		MHz
Output Capacitance	C _{ob}	V _{CB} = 5V, I _E = 0 f = 100kHz		4	pF
Noise Figure	NF	I _C = 100μA, V _{CE} = 5V f = 1KHz, R _S = 3KΩ		3	dB

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Marking

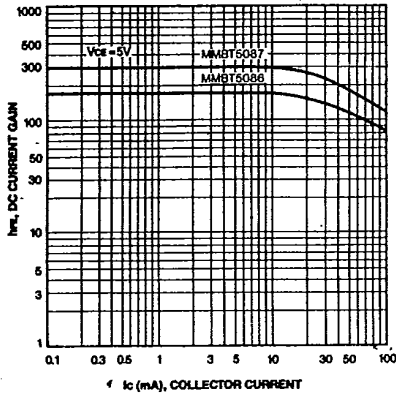


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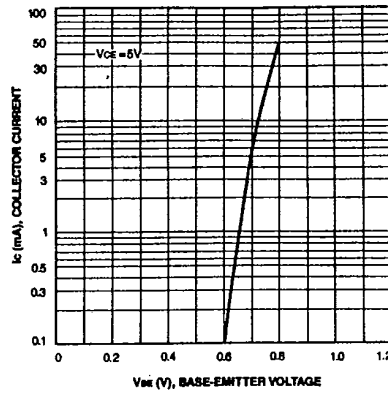
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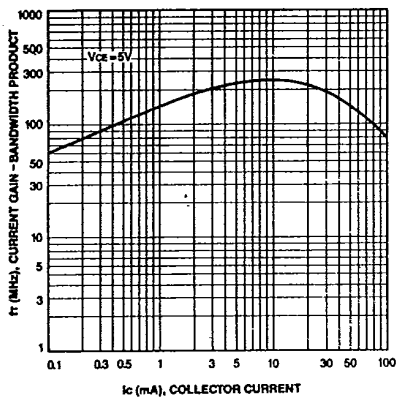
DC CURRENT GAIN



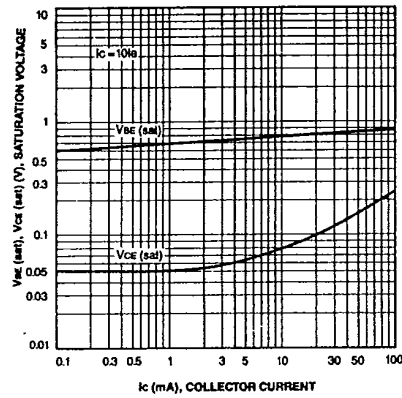
BASE-EMITTER ON VOLTAGE



CURRENT GAIN BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE

