Ordering number : EN8379A

SANYO Semiconductors

DATA SHEET

PNP Epitaxial Planar Silicon Transistor

2MP03SF — High-Frequency General-Purpose Amplifier Applications

Features

- High f_T : f_T=230MHz (typ).
- Small reverse transfer capacitance : Cre=0.9pF (typ).
- Low NF : (2.5dB typ)
- Small package permitting 2MP03SF applied sets to made small and slim.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		–30	V
Collector-to-Emitter Voltage	V_{CEO}		–20	V
Emitter-to-Base Voltage	V_{EBO}		–5	V
Collector Current	I_C		–30	mA
Collector Dissipation	P_C	Mounted on a ceramic board (600mm²×0.8mm)	150	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		–55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=–10V, I_E=0A			–0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–4V, I_C=0A			–0.1	μA
DC Current Gain	h_{FE}	V_{CE}=–6V, I_C=–1mA	60		200	
Gain-Bandwidth Product	f_T	V_{CE}=–6V, I_C=–1mA	150	230		MHz
Reverse Transfer Capacitance	Cre	V_{CB}=–6V, I_C=1MHz		0.9	1.7	pF
Noise Figure	NF	V_{CE}=–6V, I_C=–1mA, f=100MHz		2.5		dB

Marking : WC

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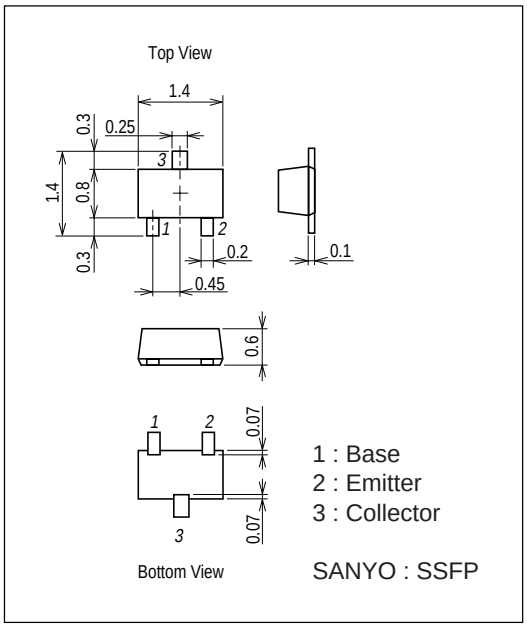
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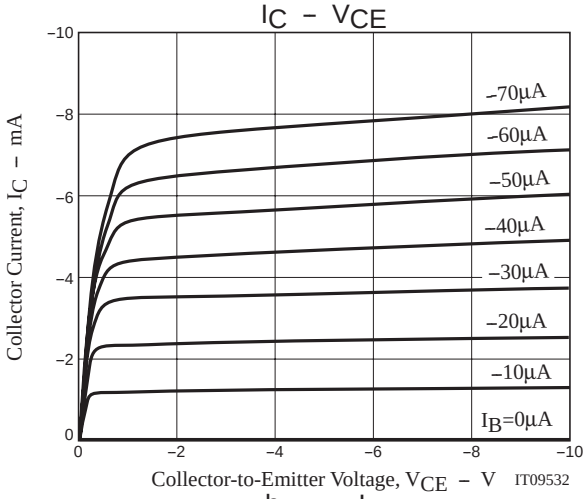
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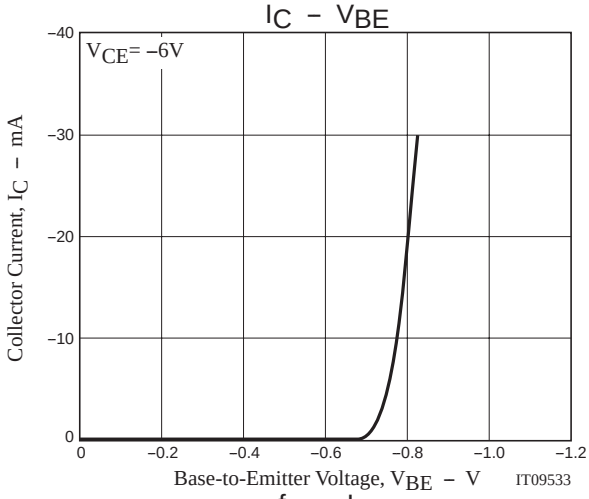
Package Dimensions

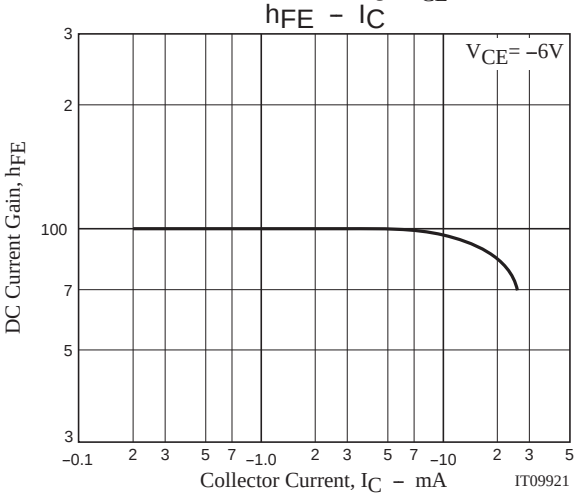
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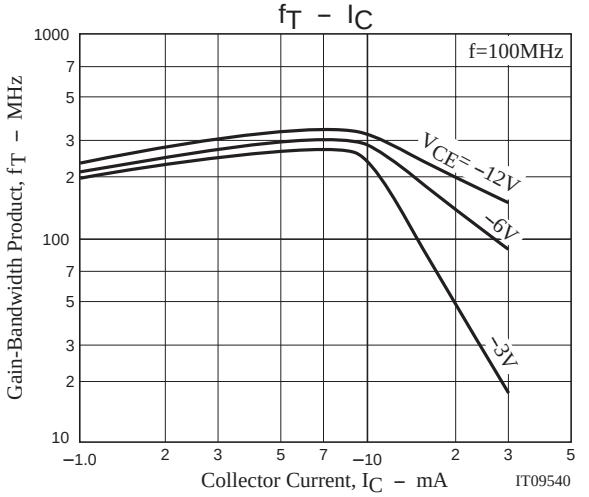
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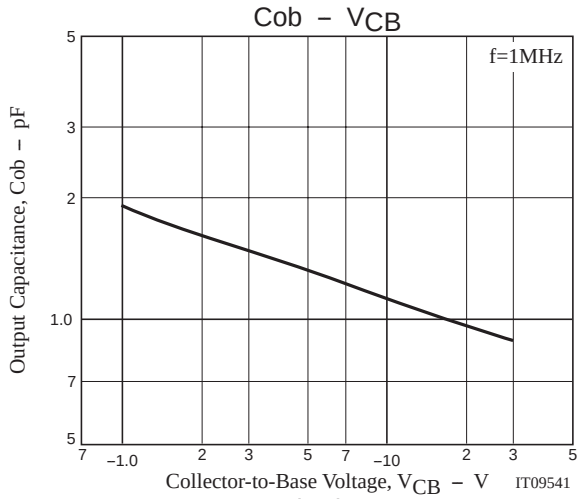


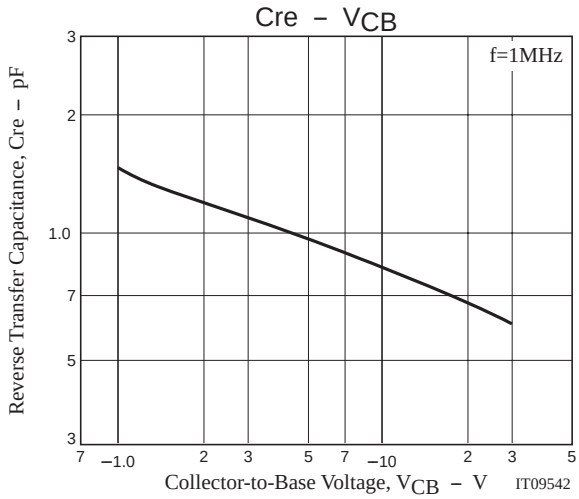


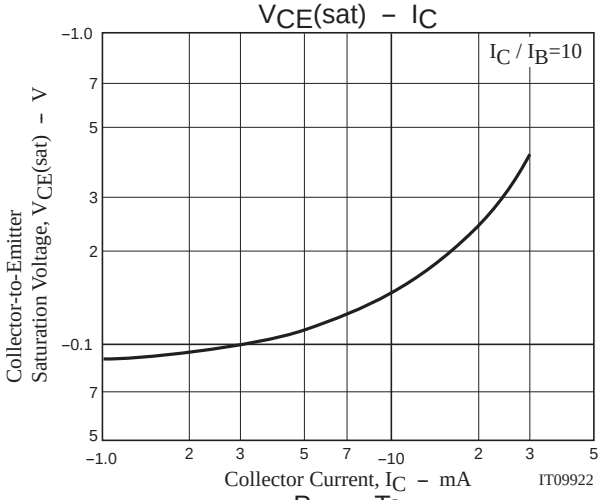


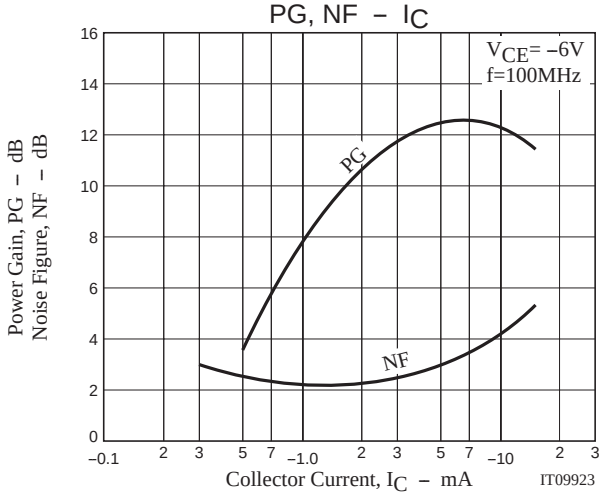


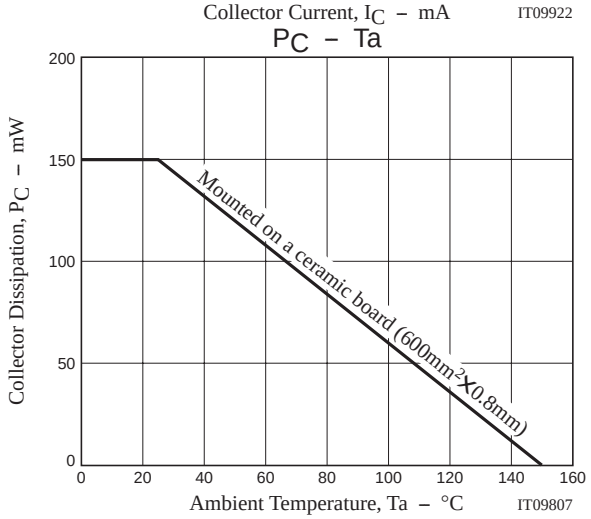



Cob – VCB
f=1MHz
Output Capacitance, Cob – pF
Collector-to-Base Voltage, VCB – V
IT09541


Cre – VCB
f=1MHz
Reverse Transfer Capacitance, Cre – pF
Collector-to-Base Voltage, VCB – V
IT09542


VCE(sat) – IC
IC / IB=10
Collector-to-Emitter Saturation Voltage, VCE(sat) – V
Collector Current, IC – mA
IT09922


PG, NF – IC
VCE= –6V
f=100MHz
PG
NF
Power Gain, PG – dB
Noise Figure, NF – dB
Collector Current, IC – mA
IT09923


PC – Ta
Mounted on a ceramic board (600mm2×0.8mm)
Collector Dissipation, PC – mW
Ambient Temperature, Ta – °C
IT09807

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