

FC101

2067

PNP Epitaxial Planar
Silicon Composite Transistor

T-27-09

Low-Frequency General-Purpose Amp, Differential Amp Applications

©3109

Features

- Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC101 is formed with two chips, being equivalent to the 2SA1622, placed in one package.
- Excellent in thermal equilibrium and pair capability and suitable for use in differential amp.

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

		unit
Collector to Base Voltage	V_{CBO}	-55 V
Collector to Emitter Voltage	V_{CEO}	-50 V
Emitter to Base Voltage	V_{EBO}	-6 V
Collector Current	I_C	-150 mA
Peak Collector Current	i_{cp}	-300 mA
Base Current	I_B	-30 mA
Collector Dissipation	P_C	200 mW
Total Power Dissipation	P_T	300 mW
Junction Temperature	T_j	150 $^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150 $^\circ\text{C}$

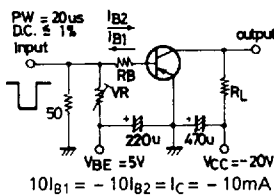
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -35\text{V}, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$	160		600	
DC Current Gain Ratio	$h_{FE(\text{small}/\text{large})}$	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$	0.8	0.98		
Base to Emitter Voltage Drop	$V_{BE(\text{large-small})}$	$V_{CE} = -6\text{V}, I_C = -1\text{mA}$		1.0	15	mV
Gain-Bandwidth Product	f_T	$V_{CE} = -6\text{V}, I_C = -10\text{mA}$		180		MHz
Output Capacitance	c_{ob}	$V_{CE} = -6\text{V}, f = 1\text{MHz}$		2.9		pF
C-E Saturation Voltage	$V_{CE(\text{sat})}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$	-0.11	-0.4		V
B-E Saturation Voltage	$V_{BE(\text{sat})}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$	-0.8	-1.0		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-55			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-6			V
Turn-ON Time	t_{on}	See specified Test Circuit.		0.15		μs
Storage Time	t_{stg}	"		0.60		μs
Fall Time	t_f	"		0.20		μs

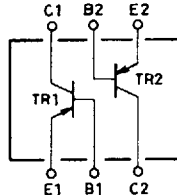
(Note) The specifications shown above are for each individual transistor.

Marking : 101

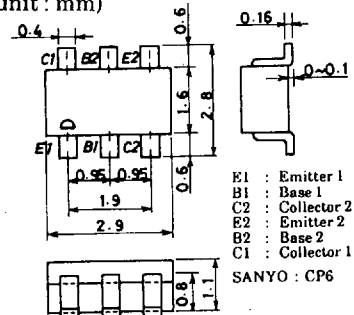
Switching Time Test Circuit



Electrical Connection

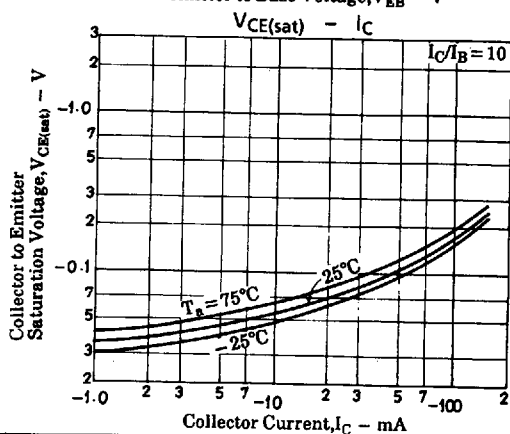
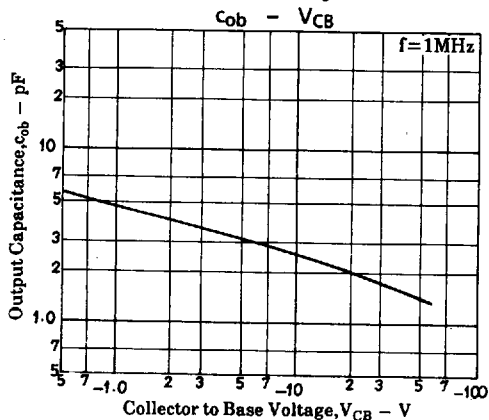
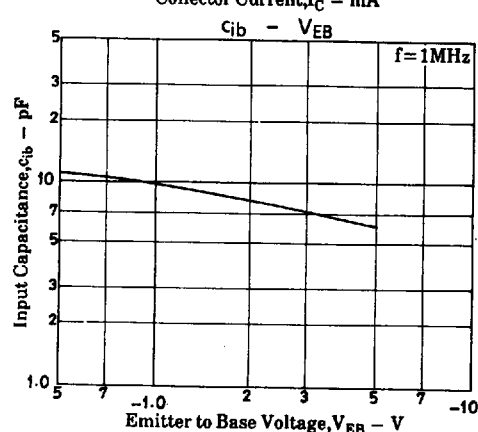
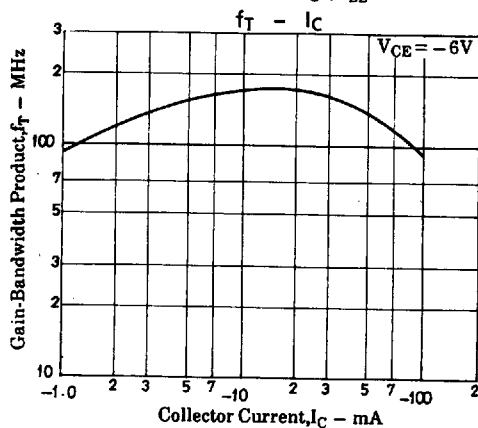
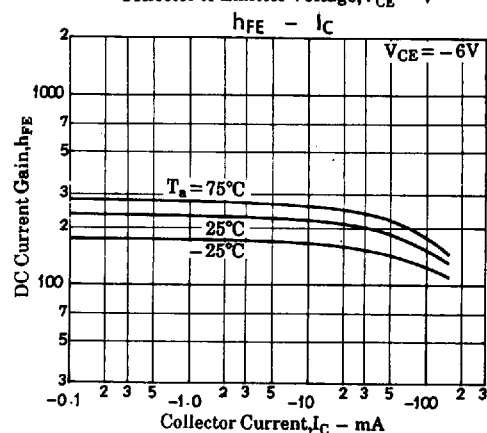
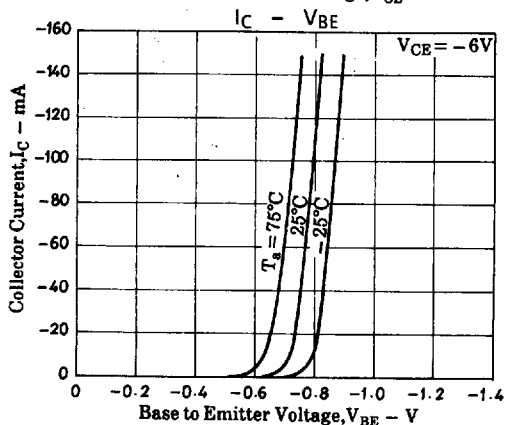
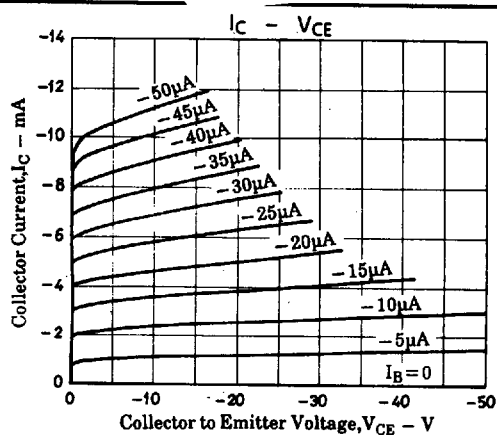
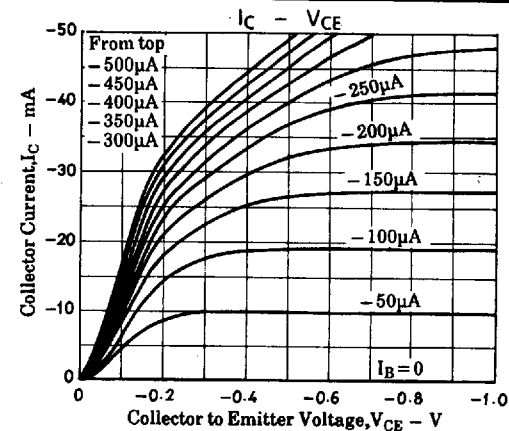


Case Outline 2067 (unit : mm)



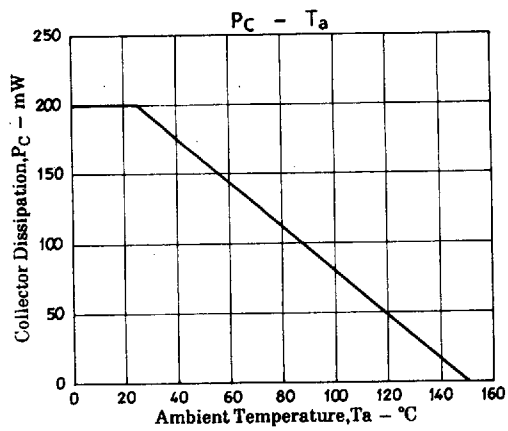
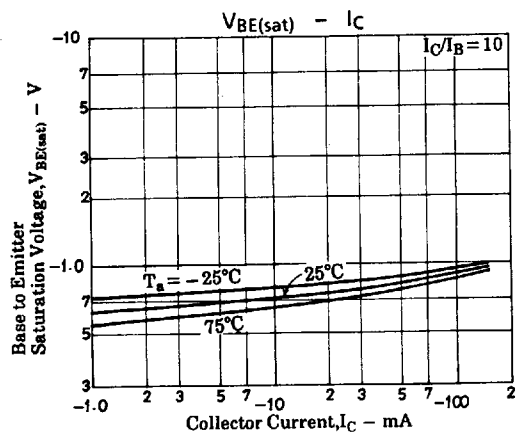
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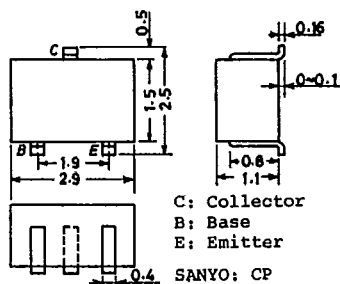


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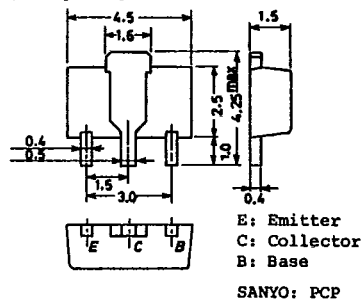
CASE OUTLINES OF SURFACE MOUNT TRANSISTORS

- All of Sanyo surface mount transistor case outlines are illustrated below.
- All dimensions are in mm, and dimensions which are not followed by min. or max. are represented by typical values.
- No marking is indicated.

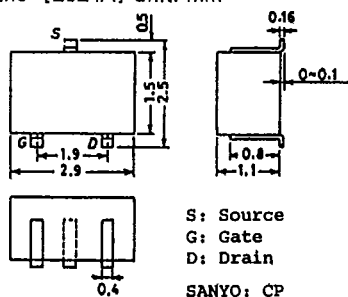
Case Outline—[2018A] unit: mm



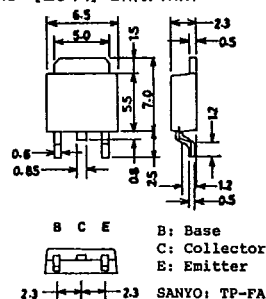
Case Outline—[2038] unit: mm



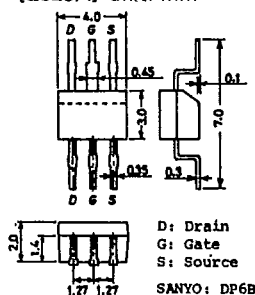
Case Outline—[2024A] unit: mm



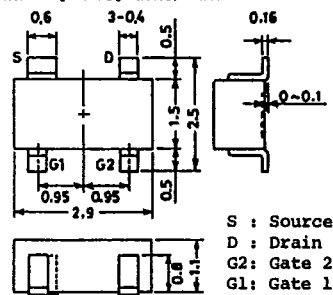
Case Outline—[2044] unit: mm



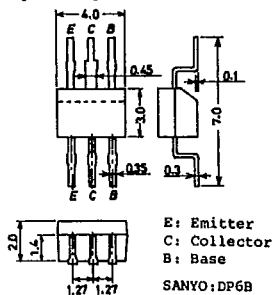
Case Outline—[2028A] unit: mm



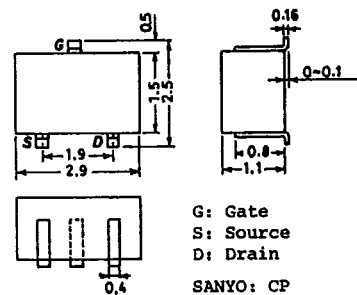
Case Outline—[2046] unit: mm



Case Outline—[2030A] unit: mm

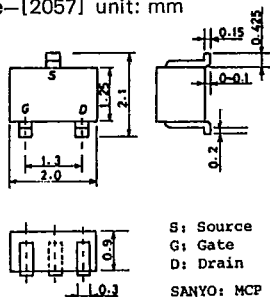


Case Outline—[2050] unit: mm

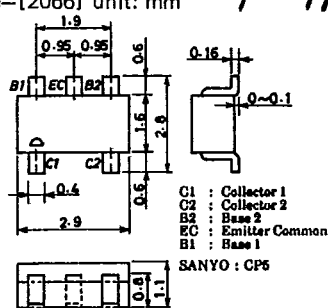


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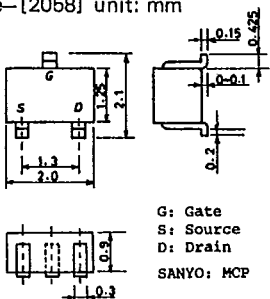
Case Outline—[2057] unit: mm



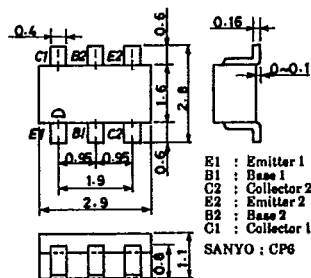
Case Outline—[2066] unit: mm



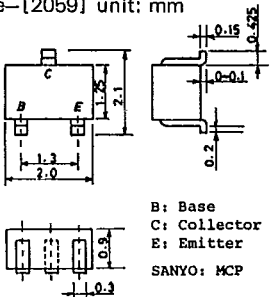
Case Outline—[2058] unit: mm



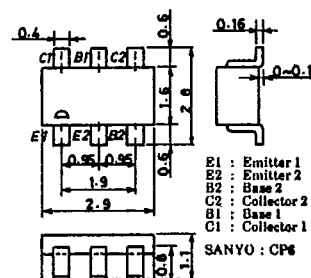
Case Outline—[2067] unit: mm



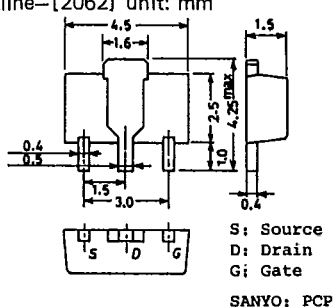
Case Outline—[2059] unit: mm



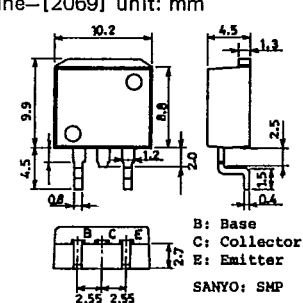
Case Outline—[2068] unit: mm



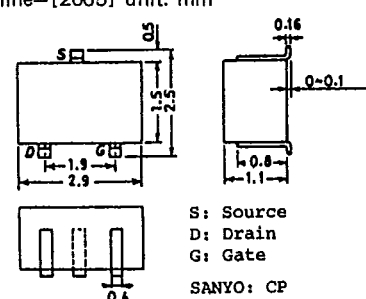
Case Outline—[2062] unit: mm



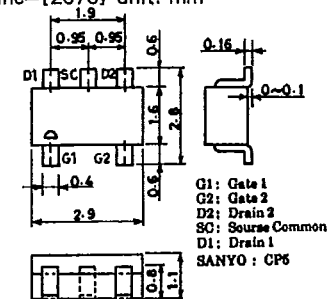
Case Outline—[2069] unit: mm



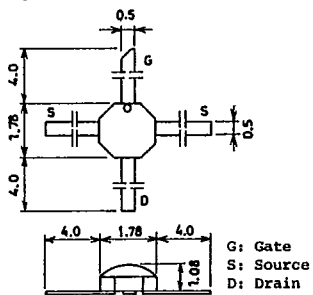
Case Outline—[2065] unit: mm



Case Outline—[2070] unit: mm

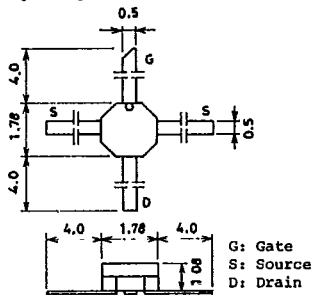


Case Outline-[2071] unit: mm



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Case Outline-[2072] unit: mm



Case Outline-[2073] unit: mm

