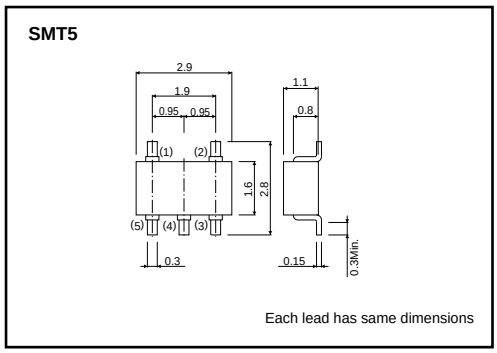
General purpose(dual transistors)

FMY5

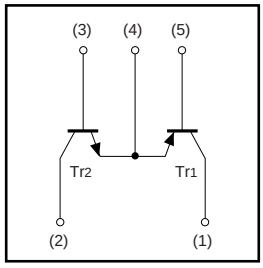
●Features

1) Both the 2SA1514K and 2SC3906K chips in an SMT package.
2) PNP and NPN chips are connecter in a common emitter.

●External dimensions (Unit : mm)



●Circuit diagram



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Power dissipation	P_C	300(TOTAL)	mW ＊
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55 to +150	°C

＊ 200mW per element must not be exceeded. PNP type negative symbols have been omitted.

●Package, marking, and packaging specifications

Part No.	FMY5
Package	SMT5
Marking	Y5
Code	T148
Basic ordering unit (pieces)	3000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	120	–	–	V	I_C = 50/–50μA
Collector-emitter breakdown voltage	BV_{CEO}	120	–	–	V	I_C = 1/–1mA
Emitter-base breakdown voltage	BV_{EBO}	5	–	–	V	I_E = 50/–50μA
Collector cutoff current	I_{CBO}	–	–	0.5	μA	V_{CB} = 100/–100V
Emitter cutoff curren	I_{EBO}	–	–	0.5	μA	V_{EB} = 4/–4V
DC current transfer ratio	h_{FE}	180	–	820	–	V_{CE} = 6/–6V, I_C = 2/–2mA
Collector-emitter saturation voltage	$V_{CE(sat)}$	–	–	0.5	V	I_C = 10/–10mA, I_B = 1/–1mA
Transition frequency	f_T	–	140	–	MHz	V_{CE} = 12/–12V, I_E = –2/2mA, f = 100MHz *
Output capacitance	Cob	–	3/4	–	pF	V_{CB} = 12/–12V, I_E = 0A, f = 1MHz

Note:The slash denotes NPN/PNP. PNP type negative symbols have been omitted. *Transition frequency of the device.

● Electrical characteristics curves

Tr1

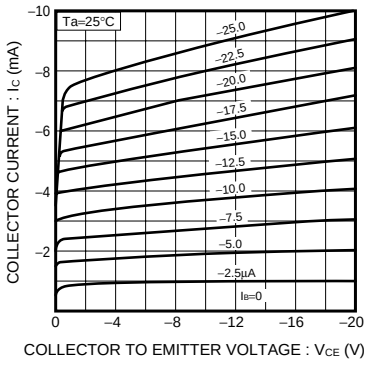


Fig.1 Ground emitter output characteristics

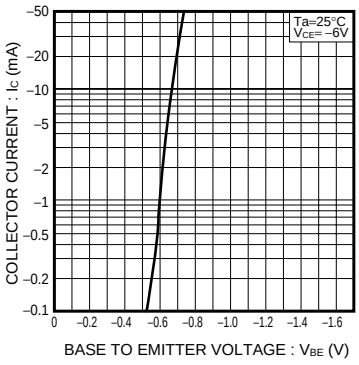


Fig.2 Ground emitter propagation characteristics

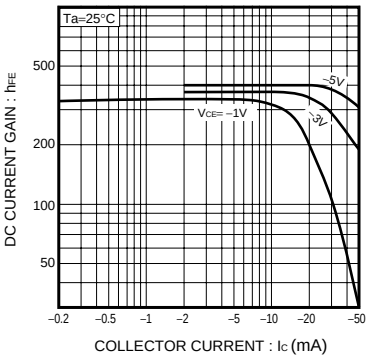


Fig.3 DC current gain vs. collector current

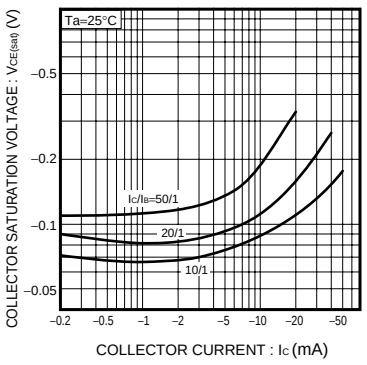


Fig.4 Collector-Emitter saturation voltage vs. collector current

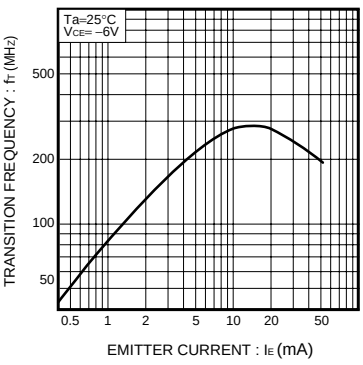


Fig.5 Transition frequency vs. emitter current

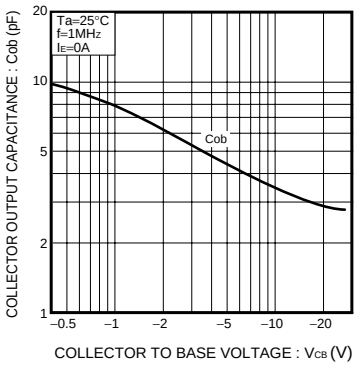


Fig.6 Collector output capacitance vs. collector-base voltage

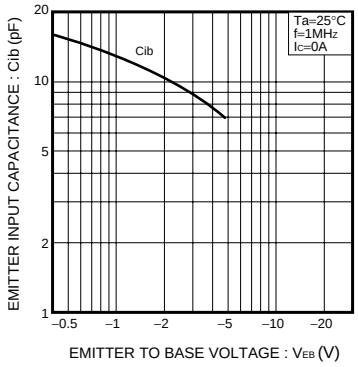


Fig.7 Emitter input capacitance vs. emitter-base voltage

Tr2

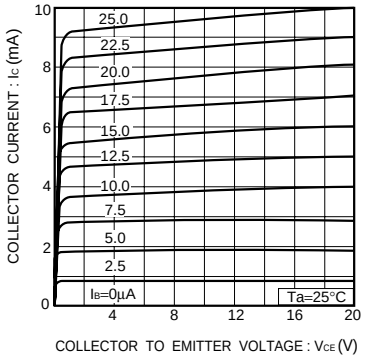


Fig.8 Ground emitter output characteristics

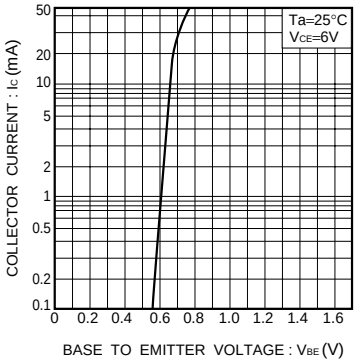


Fig.9 Ground emitter propagation characteristics

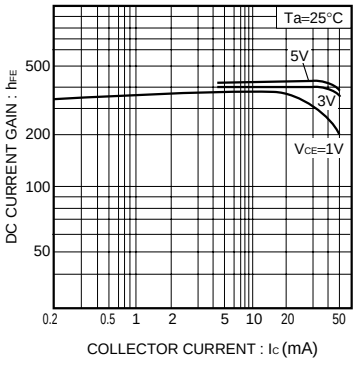


Fig.10 DC current gain vs. collector current

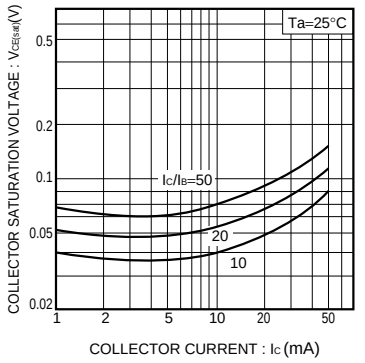


Fig.11 Collector-emitter saturation voltage vs. collector current (I)

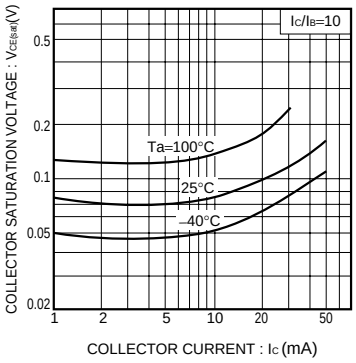


Fig.12 Collector-emitter saturation voltage vs. collector current (II)

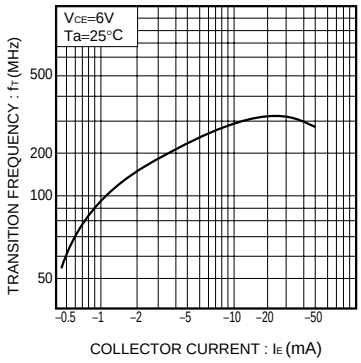


Fig.13 Transition frequency vs. emitter current

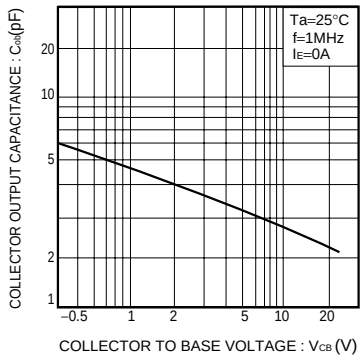


Fig.14 Collector output capacitance vs. collector-base voltage

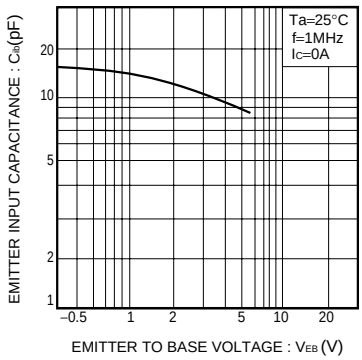


Fig.15 Emitter input capacitance vs. emitter-base voltage

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