

Transistors

General purpose (dual transistors)

IMT4

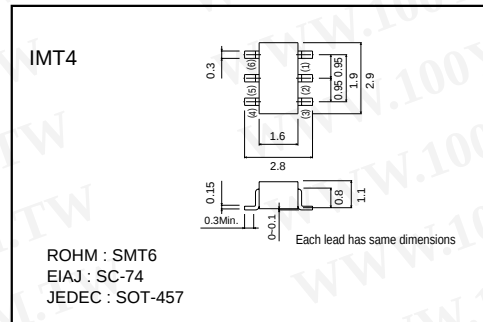
●Features

- 1) Two 2SA1514K chips in an AMT package.
- 2) High breakdown voltage.

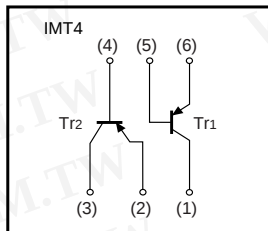
●Package, marking, and Packaging specifications

Part No.	IMT4
Package	SMT6
Marking	T4
Code	T108
Basic ordering unit (pieces)	3000

●External dimensions (Unit : mm)



●Equivalent circuit



●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	T_J	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

*200mW per element must not be exceeded.

●Electrical characteristics (Ta=25°C)

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

*Transition frequency of the device.

Transistors

●Electrical characteristic curves

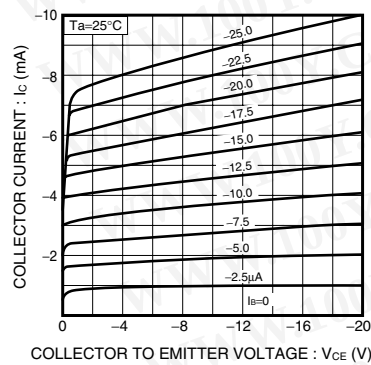


Fig.1 Ground emitter output characteristics

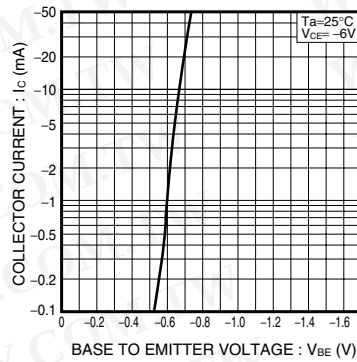


Fig.2 Ground emitter propagation characteristics

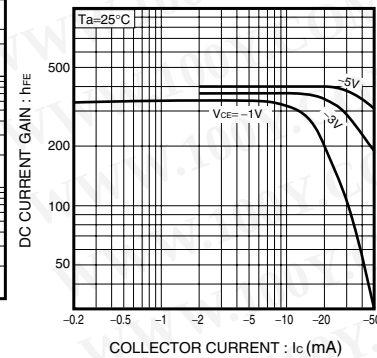


Fig.3 DC current gain vs. collector current

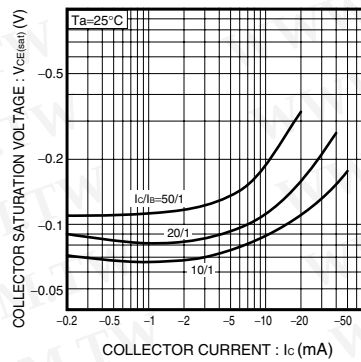


Fig.4 Collector-Emitter saturation voltage vs. collector current

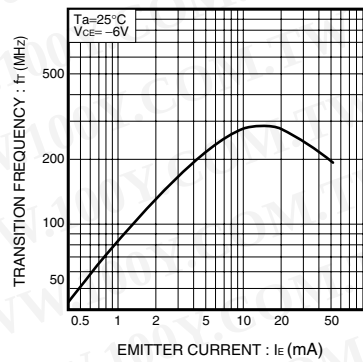


Fig.5 Transition frequency vs. emitter current

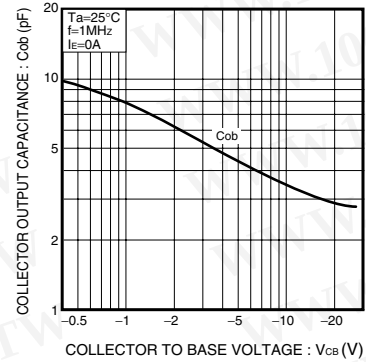


Fig.6 Collector output capacitance vs. collector-base voltage

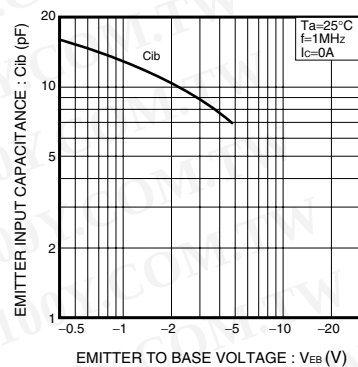


Fig.7 Emitter input capacitance vs. emitter-base voltage

Appendix

Notes

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