

Power management (dual transistors)

VT6T12

●Structure

PNP silicon epitaxial planar transistor

●Features

- 1) Very small package with two transistors.
- 2) Suitable for current mirror circuits.

●Applications

Current mirror circuits

●Packaging specifications

Type	Package	Taping
	Code	T2R
	Basic ordering unit (pieces)	8000
VT6T12		○

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
	I_{CP}^{*1}	-200	mA
Power dissipation	Total	P_D^{*2} 150	mW
	Element	120	mW
Junction temperature	T_j	150	°C
Range of storage temperature	T_{stg}	-55 to +150	°C

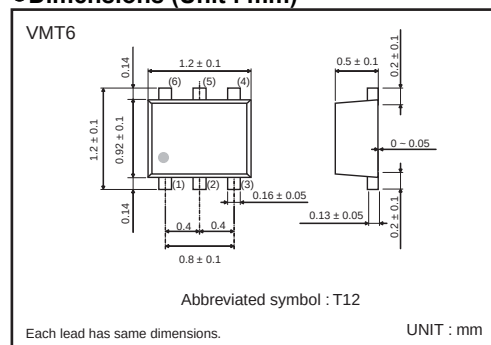
*1 $P_W=1mS$ Single pulse

*2 Each terminal mounted on a recommended land

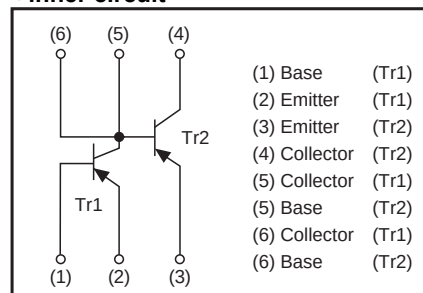
●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	-50	-	-	V	$I_C = -1mA$
Collector-base breakdown voltage	BV_{CB0}	-50	-	-	V	$I_C = -50\mu A$
Emitter-base breakdown voltage	BV_{EBO}	-5	-	-	V	$I_E = -50\mu A$
Collector cut-off current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -50V$
Emitter cut-off current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -5V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-0.15	-0.40	V	$I_C = -50mA, I_B = -5mA$
DC current gain	h_{FE}	120	-	560	-	$V_{CE} = -6V, I_C = -1mA$
DC current gain ratio	$h_{FE(T1)} / h_{FE(T2)}$	0.9	-	1.1	-	$V_{CE} = -6V, I_C = -1mA$
Transition frequency	f_T	-	300	-	MHz	$V_{CE} = -10V, I_E = 10mA, f = 100MHz$
Output capacitance	C_{ob}	-	2	-	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$

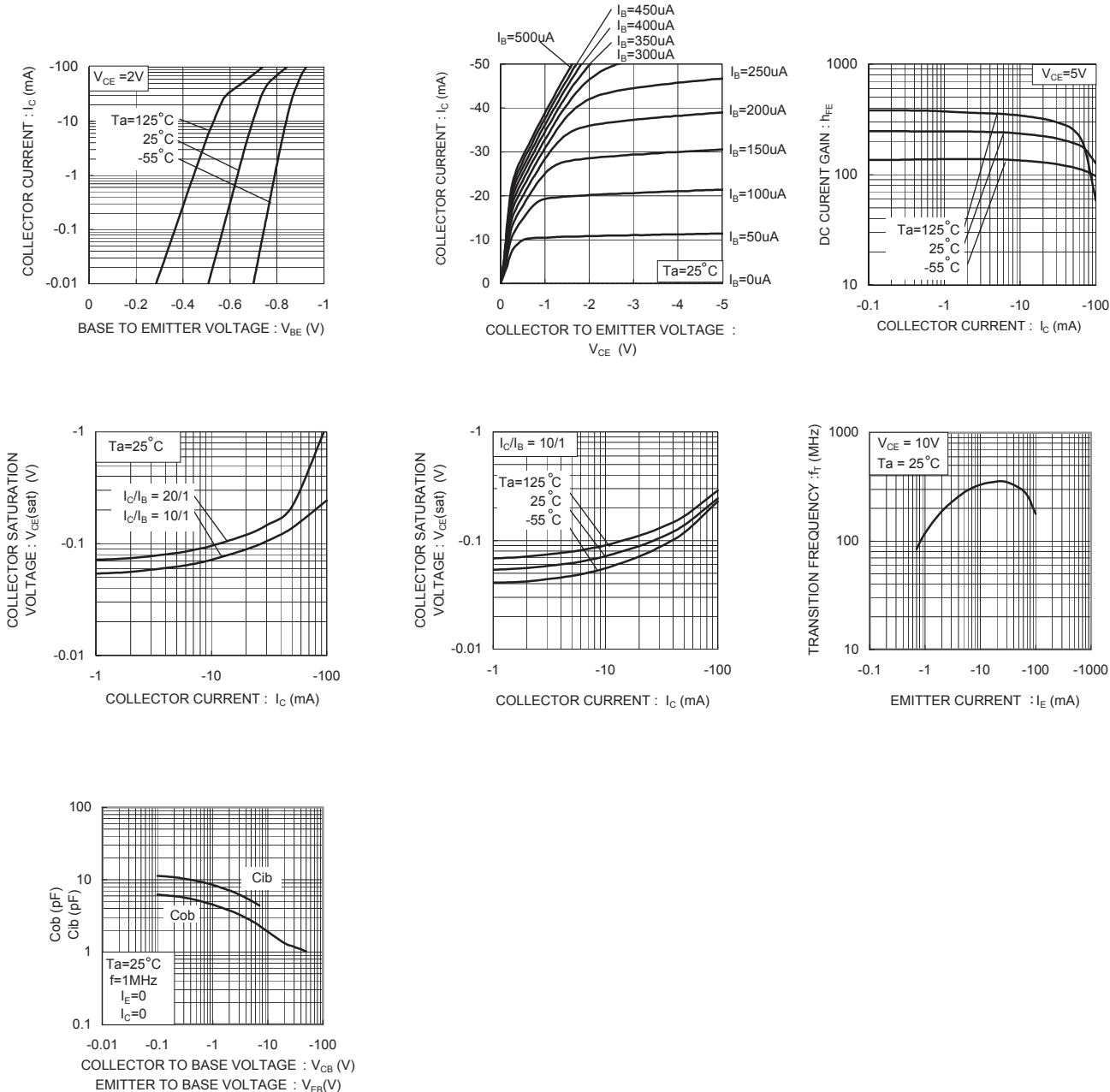
●Dimensions (Unit : mm)



●inner circuit



●Electrical characteristics curves



Notes

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