

Power management (dual transistors)

VT6X11

●Structure

NPN 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
VT6X11		○

● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Collector-base voltage	V _{CB0}	20	V	
Collector-emitter voltage	V _{CE0}	20	V	
Emitter-base voltage	V _{EB0}	5	V	
Collector current	I _c	200	mA	
	I _{CP} *1	400	mA	
Power dissipation	P _D *2	Total	150	mW
		Element	120	mW
Junction temperature	T _j	150	°C	
Range of storage temperature	T _{stg}	-55 to +150	°C	

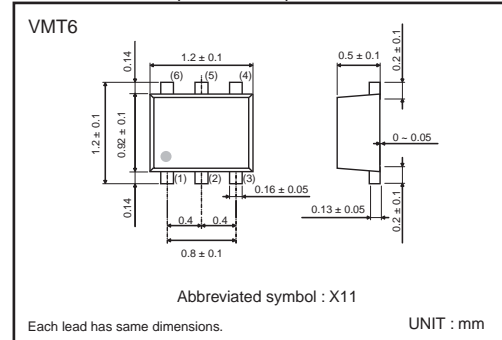
*1 Pw=1mS Single pulse

*2 Each terminal mounted on a recommended land

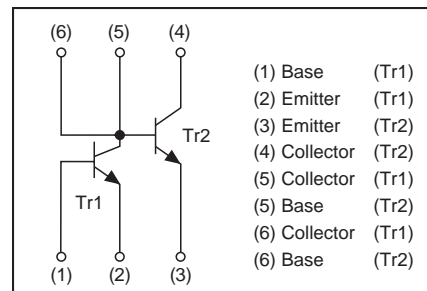
●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV _{CE0}	20	-	-	V	I _c =1mA
Collector-base breakdown voltage	BV _{CB0}	20	-	-	V	I _c =50μA
Emitter-base breakdown voltage	BV _{EB0}	5	-	-	V	I _E =50μA
Collector cut-off current	I _{cBO}	-	-	0.1	μA	V _{CB} =20V
Emitter cut-off current	I _{EBO}	-	-	0.1	μA	V _{EB} =5V
Collector-emitter saturation voltage	V _{CE(sat)}	-	0.12	0.30	V	I _c =100mA, I _B =10mA
DC current gain	h _{FE}	120	-	560	-	V _{CE} =2V, I _c =1mA
DC current gain ratio	h _{FE (Tr1)} / h _{FE (Tr2)}	0.9	-	1.1	-	V _{CE} =2V, I _c =1mA
Transition frequency	f _r	-	400	-	MHz	V _{CE} =10V, I _E =-10mA, f=100MHz
Output capacitance	C _{ob}	-	2	-	pF	V _{CB} =10V, I _E =0A, f=1MHz

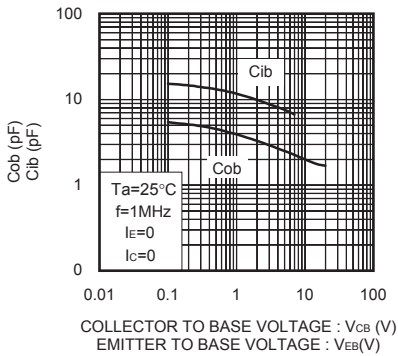
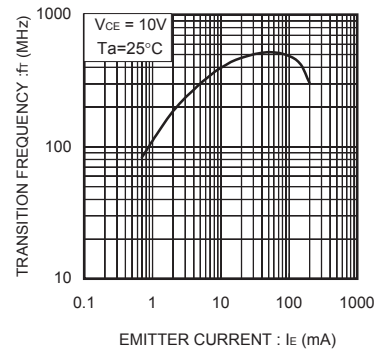
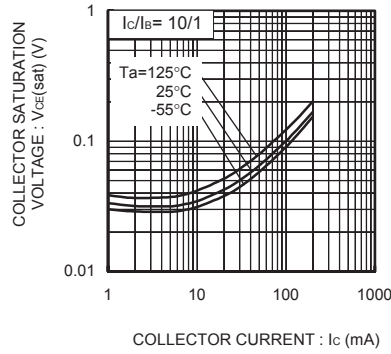
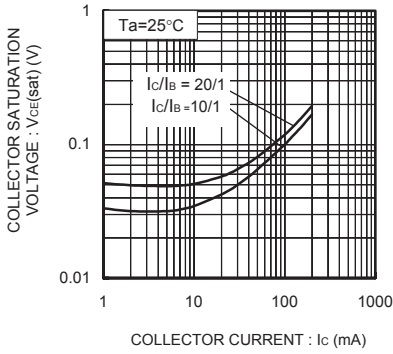
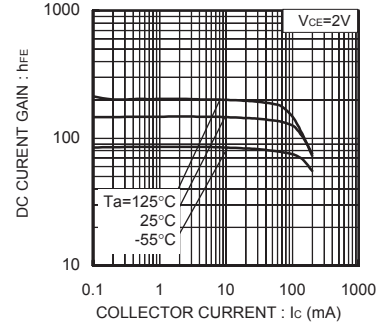
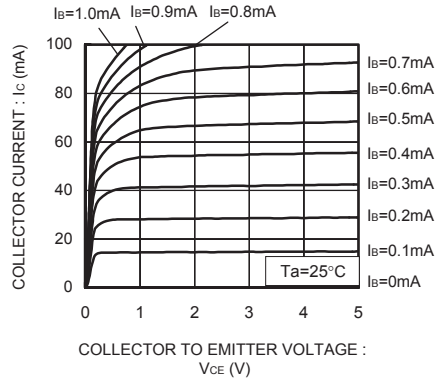
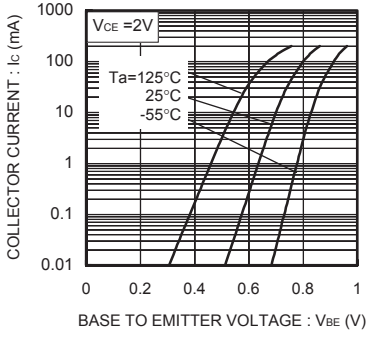
●Dimensions (Unit : mm)



●Inner circuit



●Electrical characteristics curves



Notes

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