

General purpose transistor(-20V,-0.2A)

2SAR522M / 2SAR522EB / 2SAR522UB

●Structure

PNP silicon epitaxial planar transistor

●Features

Complements the 2SCR522M / 2SCR522EB / 2SCR522UB.

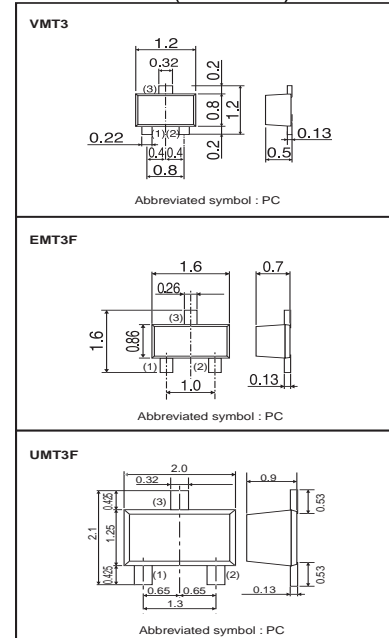
●Applications

Switch, LED driver

●Packaging specifications

Type	Package	VMT3	EMT3F	UMT3F
	Packaging Type	Taping	Taping	Taping
	Code	T2L	TL	TL
	Basic ordering unit (pieces)	8000	3000	3000
2SAR522M		○	—	—
2SAR522EB		—	○	—
2SAR522UB		—	—	○

●Dimensions (Unit : mm)



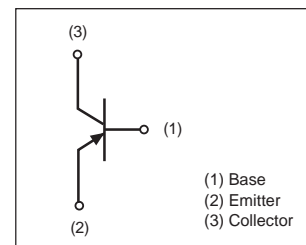
● Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Collector-base voltage		V _{CB0}	-20	V
Collector-emitter voltage		V _{CEO}	-20	V
Emitter-base voltage		V _{EBO}	-5	V
Collector current		I _C	-200	mA
		I _{CP} *1	-400	mA
Power dissipation	2SAR522M, 2SAR522EB	P _D *2	150	mW
	2SAR522UB		200	mW
Junction temperature		T _j	150	°C
Storage temperature		T _{stg}	-55 to +150	°C

*1 Pw=1mS Single pulse

*2 Each terminal mounted on a recommended land

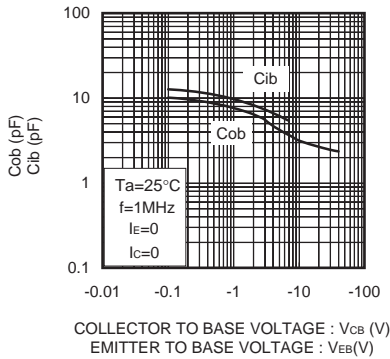
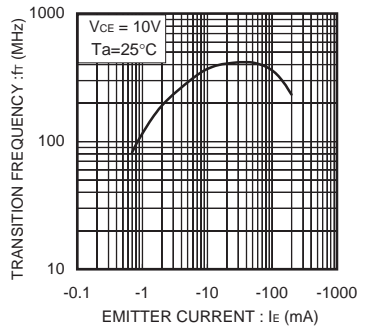
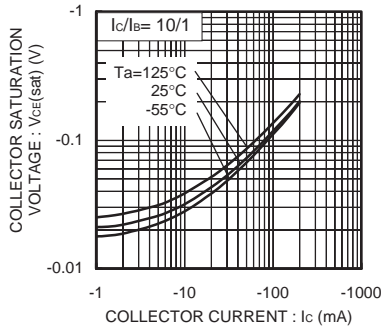
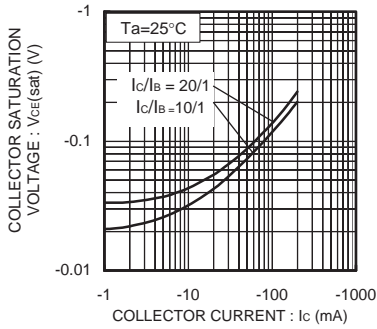
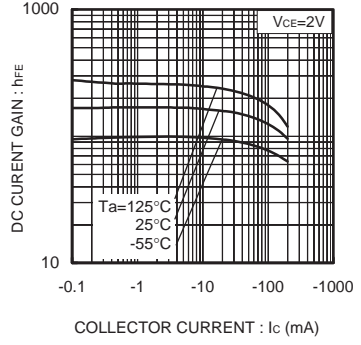
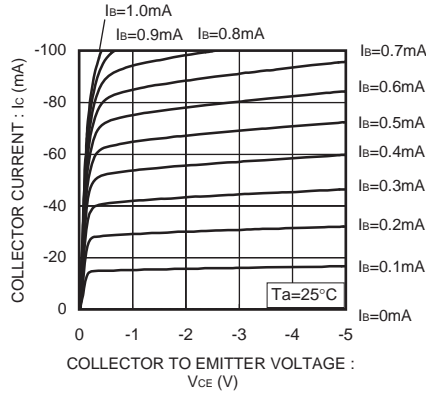
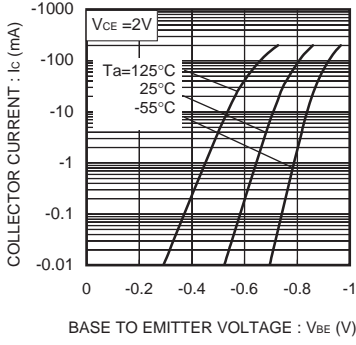
●Inner circuit



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV _{CEO}	-20	-	-	V	I _C =-1mA
Collector-base breakdown voltage	BV _{CB0}	-20	-	-	V	I _C =-50μA
Emitter-base breakdown voltage	BV _{EBO}	-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
Transition frequency	f _T	-	350	-	MHz	V _{CE} =-10V, I _E =10mA, f=100MHz
Output capacitance	C _{ob}	-	3	-	pF	V _{CB} =-10V, I _E =0A, f=1MHz

●Electrical characteristics curves



Notes

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