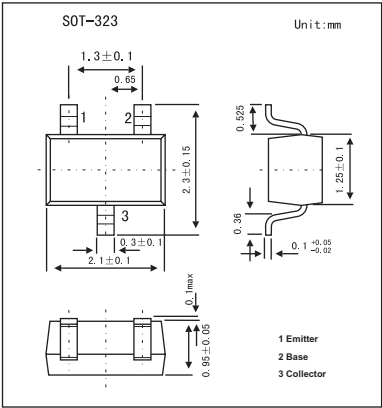


2SA1576A

■ Features

- Excellent hFE linearity.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-60	V
Collector-emitter voltage	V _{CEO}	-50	V
Emitter-base voltage	V _{EBO}	-6	V
Collector current	I _c	-0.15	A
Collector power dissipation	P _c	0.2	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV _{CB0}	I _c =-50μA	-60			V
Collector-emitter breakdown voltage	BV _{CEO}	I _c =-1mA	-50			V
Emitter-base breakdown voltage	BV _{EBO}	I _E =-50μA	-6			V
Collector cutoff current	I _{cBO}	V _{CB} =-60V			-0.1	μA
Emitter cutoff current	I _{EBO}	V _{EB} =-6V			-0.1	μA
Collector-emitter saturation voltage	V _{CE(sat)}	I _c /I _B =-50mA/-5mA			-0.5	V
DC current transfer ratio	h _{FE}	V _{CE} =-6V, I _c =-1mA	120		560	
Transition frequency	f _T	V _{CE} =-12V, I _E =2mA, f=100MHz		140		MHz
Output capacitance	C _{ob}	V _{CB} =-12V, I _E =0A, f=1MHz		4.0	5.0	pF

■ hFE Classification

Marking	FQ	FR	FS
hFE	120~270	180~390	270~560

Electrical characteristic curves

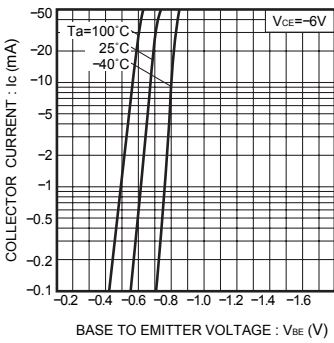


Fig.1 Grounded emitter propagation characteristics

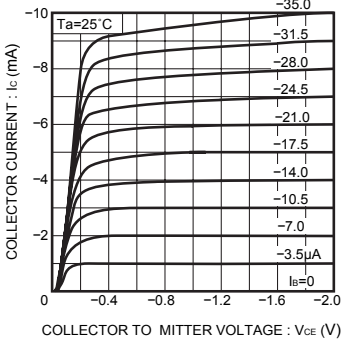


Fig.2 Grounded emitter output characteristics (I)

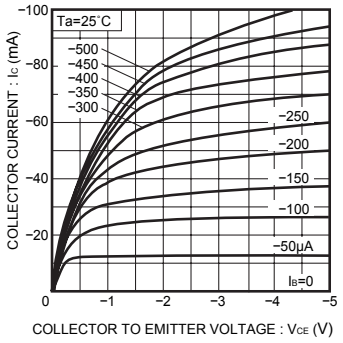


Fig.3 Grounded emitter output characteristics (II)

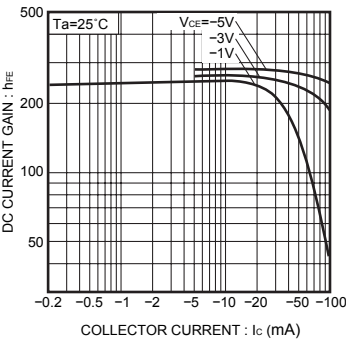


Fig.4 DC current gain vs. collector current (I)

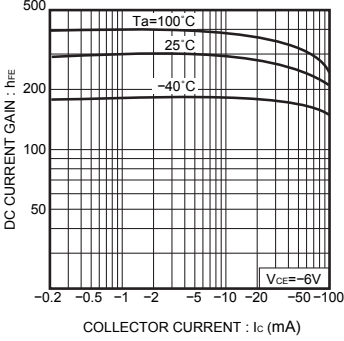


Fig.5 DC current gain vs. collector current (II)

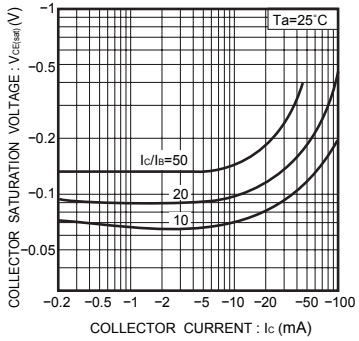


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

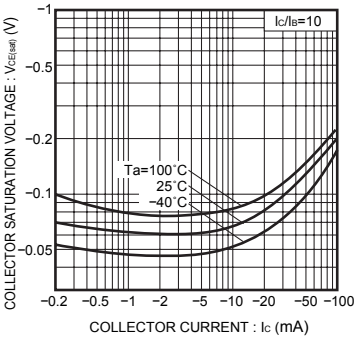


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

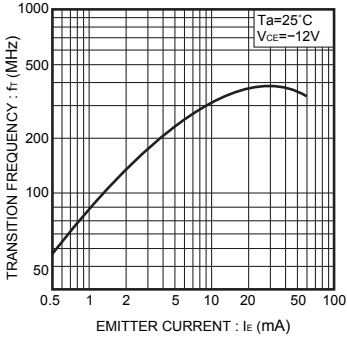


Fig.8 Gain bandwidth product vs. emitter current

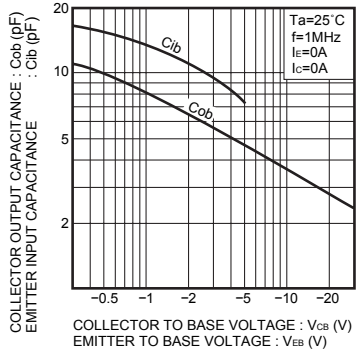


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage