

Data Sheet

General purpose small signal amplifier (50V, 0.15A)

2SA1576UB

Applications

General purpose small signal amplifier.

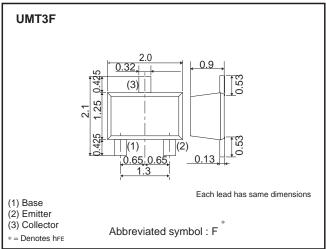
Features

- 1) Excellent hee linearity.
- 2) Complements the 2SC4081UB.

●Structure

PNP silicon epitaxial planar transistor.

●Dimensions (Unit : mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	Vсво	-60	V
Collector-emitter voltage	VCEO	-50	V
Emitter-base voltage	Vево	-6	V
Collector current	Ic	-150	mA
	Icp *1	-200	mA
Power dissipation	P _D *2	200	mW
Junction temperature	Tj	150	°C
Range of storage temperature	Tstg	-55 to +150	°C

^{*1} Pw=1ms Single pulse

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BVceo	-50	-	_	V	Ic=-1mA
Collector-base breakdown voltage	ВУсво	-60	_	_	V	Ic= -50μA
Emitter-base breakdown voltage	ВVево	-6	_	_	V	IE= -50μA
Collector cutoff current	Ісво	_	-	-100	nA	Vcb= -60V
Emitter cutoff current	ІЕВО	_	_	-100	nA	V _{EB} = -6V
Collector-emitter saturation voltage	VCE(sat)	_	_	-0.5	V	Ic/I _B = -50mA/-5mA
DC current gain	hfe	120	_	390	_	Vce=-6V, Ic=-1mA
Transition frequency	f⊤	_	140	_	MHz	Vc=-12V, I=2mA, f=100MHz
Output capacitance	Cob	_	4.0	5.0	pF	Vcb= -12V, Ie=0A, f=1MHz

^{*2} Each terminal mounted on a recommended land

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hfe rank categories

Rank	Q	R
hfE	120 to 270	180 to 390

•Electrical characteristic curves

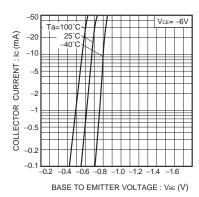


Fig.1 Grounded emitter propagation characteristics

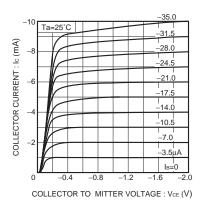


Fig.2 Grounded emitter output characteristics (I)

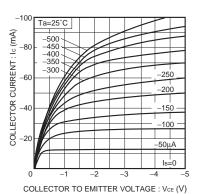


Fig.3 Grounded emitter output characteristics (II)

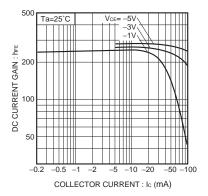


Fig.4 DC current gain vs. collector current (I)

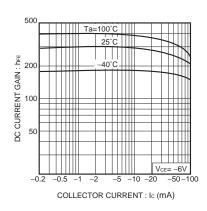


Fig.5 DC current gain vs. collector current (II)

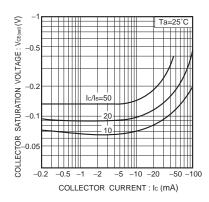


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

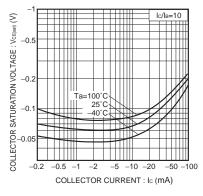


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

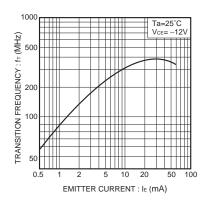


Fig.8 Gain bandwidth product vs. emitter current

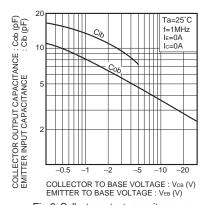


Fig.9 Collector output capacitance vs. collector-base voltage Emitter inputcapacitance vs. emitter-base voltage

Notes

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