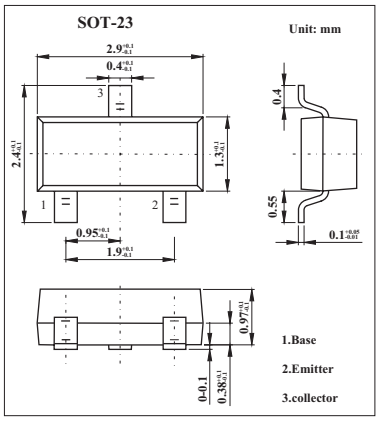
General Purpose Transistor
2SA1037AK



Features

- Excellent hFE linearity.
- PNP silicon transistor

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-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	℃
Storage temperature	T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=-50μA	-60			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=-1mA	-50			V
Emitter-base breakdown voltage	V_{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 Gain	h_{FE}	V_{CE}=-6V, I_C=-1mA	120		560	
Output capacitance	C_{ob}	V_{CB}=-12V, I_E=0A, f=1MHz		4.0	5.0	pF
Transition frequency	f_T	V_{CE}=-12V, I_E=2mA, f=30MHz		140		MHz

h_{FE} Classification

Marking	FQ	FR	FS
Rank	Q	R	S
h_{FE}	120～270	180～390	270～560

2SA1037AK

■Typical Characteristics

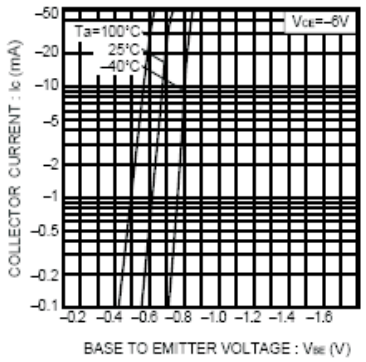


Fig.1 Grounded emitter propagation characteristics

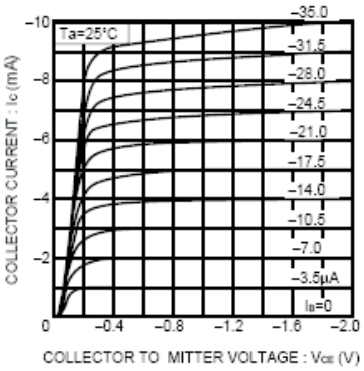


Fig.2 Grounded emitter output characteristics (I)

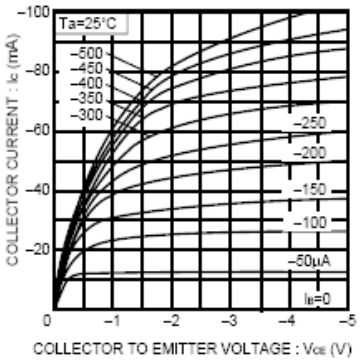


Fig.3 Grounded emitter output characteristics (II)

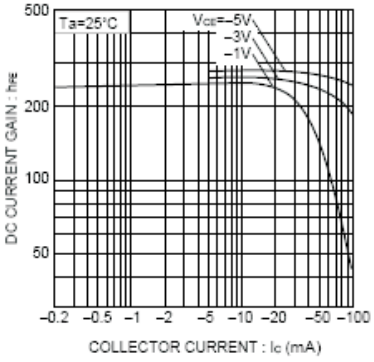


Fig.4 DC current gain vs. collector current (I)

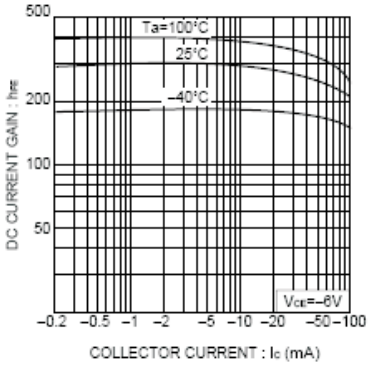


Fig.5 DC current gain vs. collector current (II)

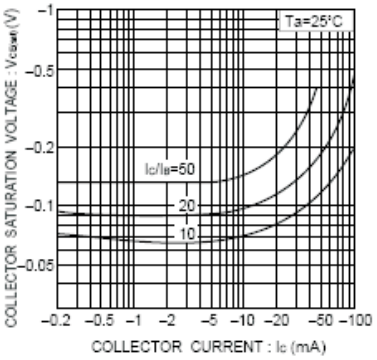


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

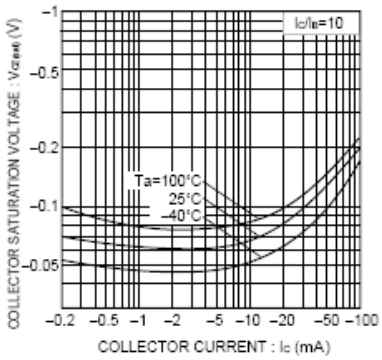


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

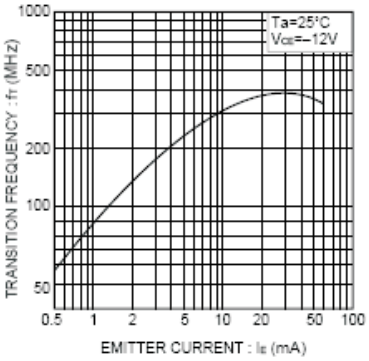


Fig.8 Gain bandwidth product vs. emitter current

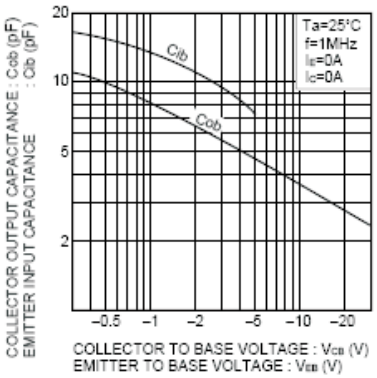


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter inputcapacitance vs. emitter-base voltage