



**2SC4081-A
 2SC4081-B
 2SC4081-C**

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Cob . Cob=2.0pF(Typ)
- Complementary to 2SC1576A
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	50	V
V _{CBO}	Collector-Base Voltage	60	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current	150	mA
P _C	Collector power dissipation	200	mW
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

I _{CBO}	Collector Cutoff Current (V _{CB} =60Vdc, I _E =0)	---	---	100	nAdc
I _{EBO}	Emitter Cutoff Current (V _{EB} =7.0Vdc, I _C =0)	---	---	100	nAdc

ON CHARACTERISTICS

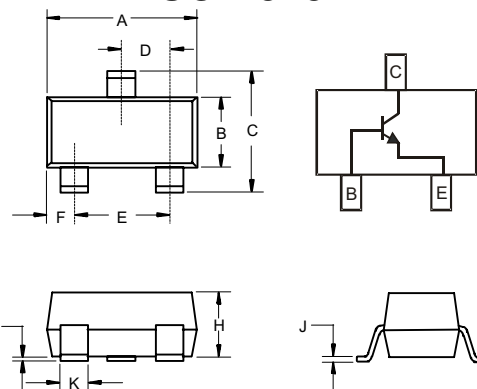
BV _{CBO}	Collector-base breakdown voltage (I _C =50μAdc, I _E =0)	60	---	---	Vdc
BV _{CEO}	Collector-emitter breakdown voltage (I _C =1mAdc, I _B =0)	50	---	---	Vdc
BV _{EBO}	Emitter-base breakdown voltage (I _E =50μAdc, I _C =0)	7	---	---	Vdc
h _{FE}	DC Current Gain (I _C =1mAdc, V _{CE} =6.0Vdc)	120	---	560	---
V _{CE(sat)}	Collector Saturation Voltage (I _C =50mAdc, I _B =5.0mAdc)	---	---	0.4	Vdc
C _{ob}	Output Capacitance (V _{CB} =12.0Vdc, I _E =0, f=1.0MHz)	---	2.0	3.5	pF
f _T	Gain Bandwidth product (V _{CE} =12Vdc, I _C =2mAdc, f=30MHz)	---	180	---	MHz

h_{FE} CLASSIFICATION

Rank	A	B	C
Marking	BQ	BR	BS
h _{FE}	120~270	180~390	270~560

**NPN Silicon
 Epitaxial Transistors**

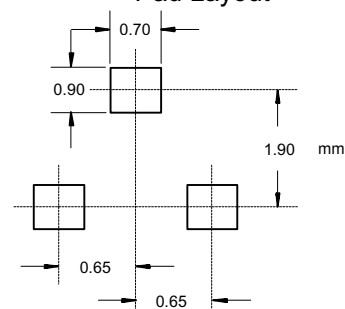
SOT-323



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

**Suggested Solder
 Pad Layout**



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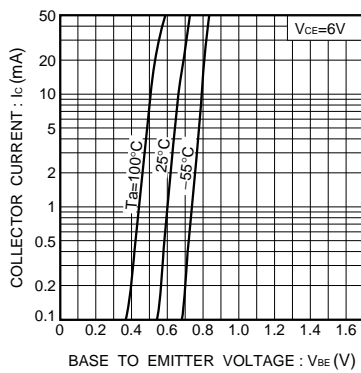


Fig.1 Grounded emitter propagation characteristics

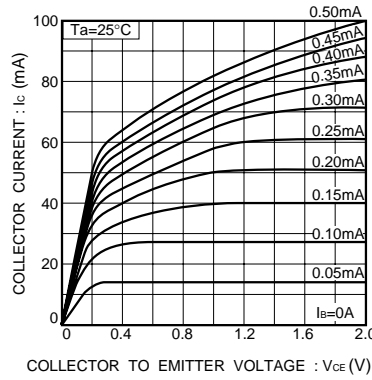


Fig.2 Grounded emitter output characteristics (I)

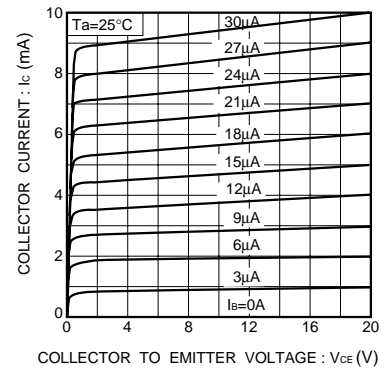


Fig.3 Grounded emitter output characteristics (II)

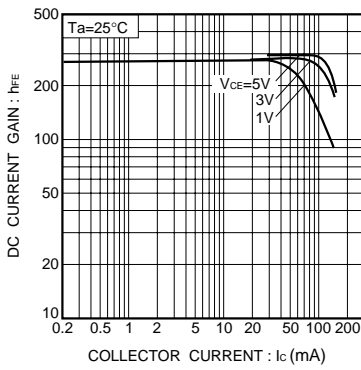


Fig.4 DC current gain vs. collector current (I)

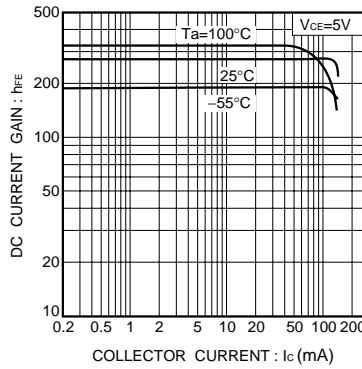


Fig.5 DC current gain vs. collector current (II)

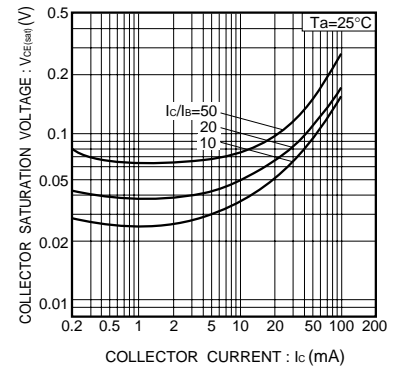


Fig. 6 Collector-emitter saturation voltage vs. collector current

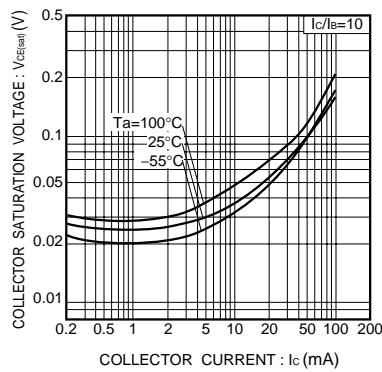


Fig.7 Collector-emitter saturation voltage vs. collector current (I)

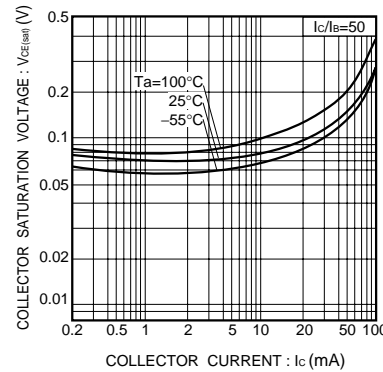


Fig.8 Collector-emitter saturation voltage vs. collector current (II)

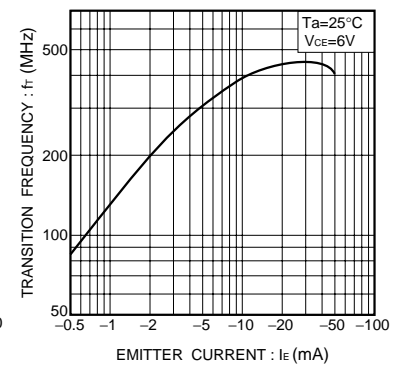


Fig.9 Gain bandwidth product vs. emitter current

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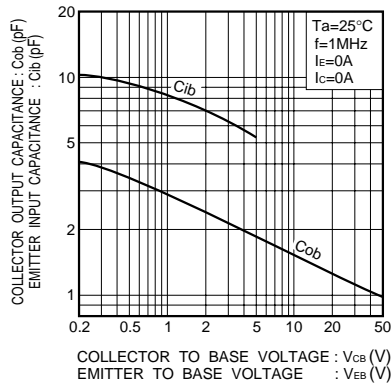


Fig.10 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

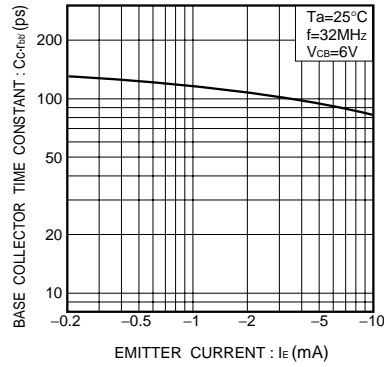


Fig.11 Base-collector time constant vs. emitter current



Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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