DESCRIPTION

The 2SC4081X is available in SC-70 Package.

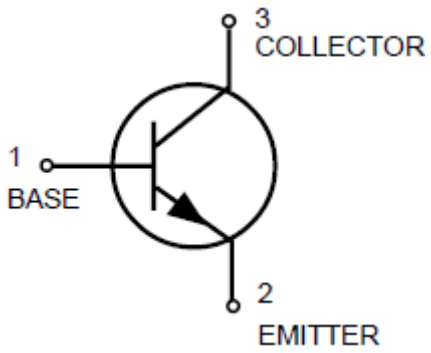
FEATURES

- Low Cob, Cob=2pF(Typ.).
- Epitaxial planar type.
- PNP complement: 2SA1576A
- RoHS Compliant
- Available in SC-70 Package

ORDERING INFORMATION

Package Type	Part Number
SC-70	2SC4081Q
	2SC4081R
	2SC4081S
Note	3,000PCS/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS

V_{CEO}, Collector-Emitter Voltage	50V
V_{CBO}, Collector-Base Voltage	60V
V_{EBO}, Emitter-Base Voltage	7.0V
I_C, Collector Current	150mAdc
P_C, Collector Power Dissipation	0.2W
T_j, Junction Temperature	150°C
T_{stg}, Storage Temperature	-55°C ~ +150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: P_C must not be exceeded

h_{EF} values are classified as follows:

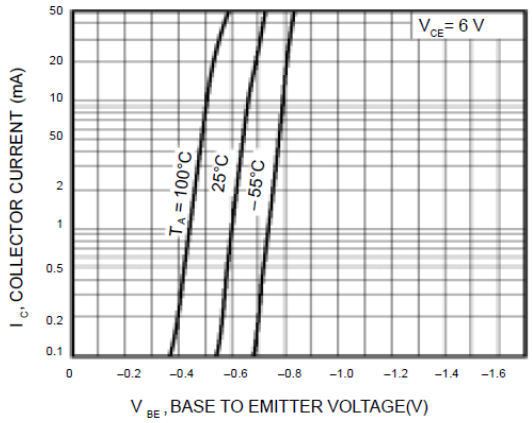
*	Q	R	S
h_{EF}	120~270	180~390	270~560

ELECTRICAL CHARACTERISTICS

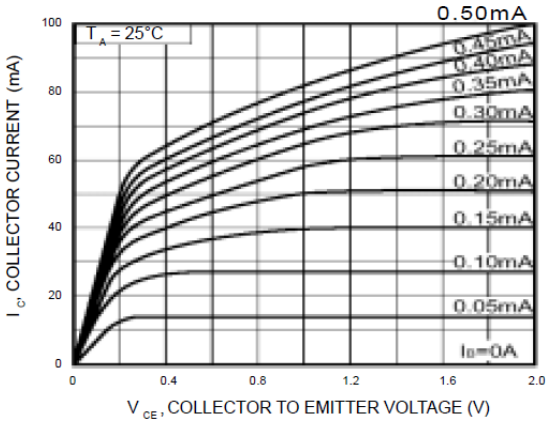
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA	50	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 50μA	7	-	-	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 50μA	60	-	-	V
Collector cutoff current	I_{CBO}	V_{CB} = 60V	-	-	0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 7V	-	-	0.1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C/I_B = 50mA /5mA	-	-	0.4	V
DC current transfer ratio	h_{EF}	V_{CE} = 6V ,I_C = 1mA	120	-	560	-
Transition frequency	f_T	V_{CE} = 12V, I_E = -2mA, f = 30MHz	-	180	-	MHz
Output capacitance	C_{ob}	V_{CB}=12V, I_E=0A, f=1MHz	-	2.0	3.5	pF

TYPICAL PERFORMANCE CHARACTERISTICS

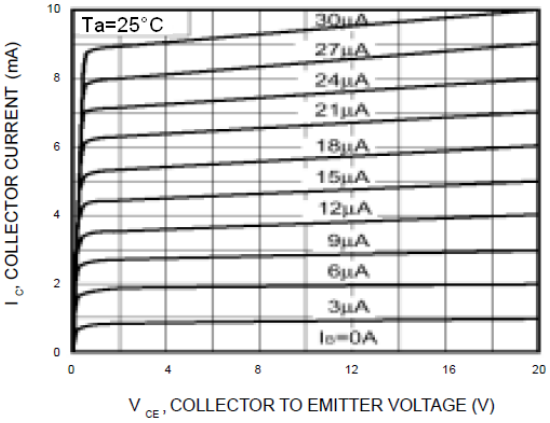
1. Grounded emitter propagation characteristics



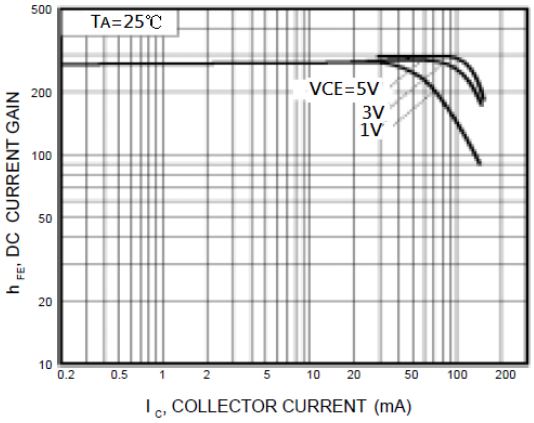
2. Grounded emitter output characteristics(I)



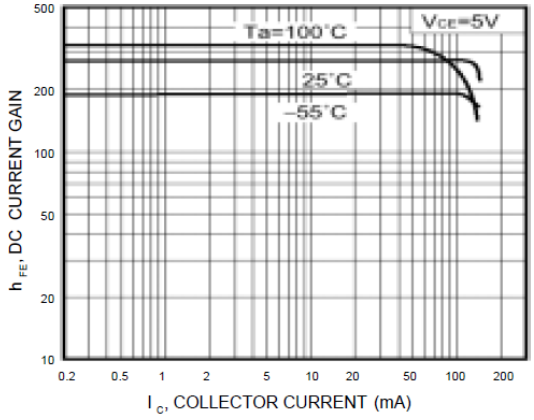
3. Grounded emitter output characteristics(II)



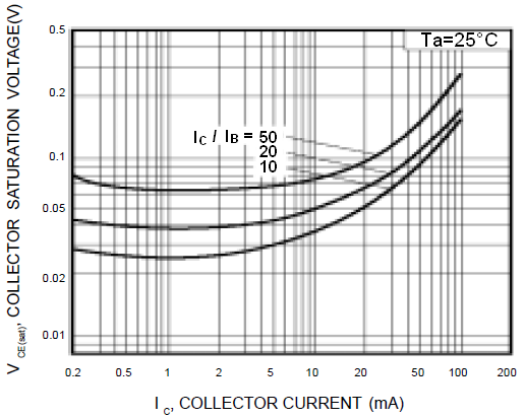
4. DC current gain vs. collector current (I)



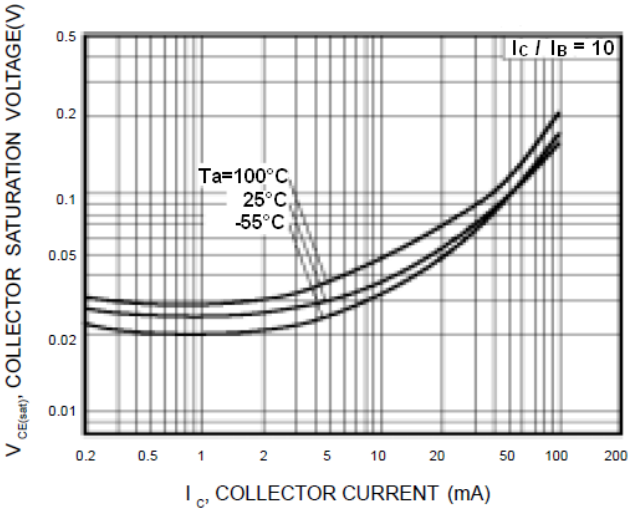
5. DC current gain vs. collector current (II)



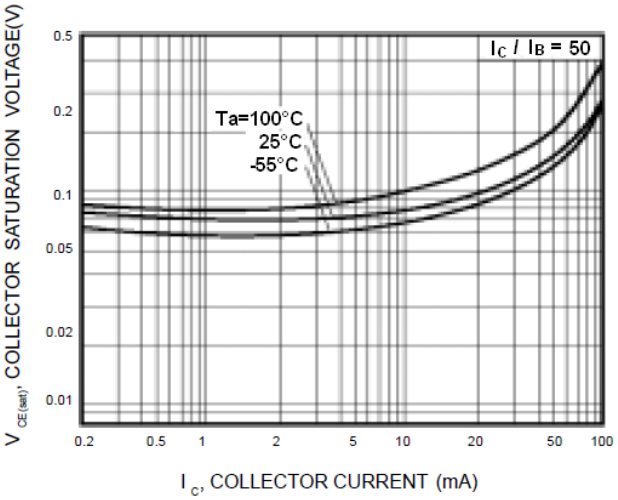
6. Collector-emitter saturation voltage vs. collector current



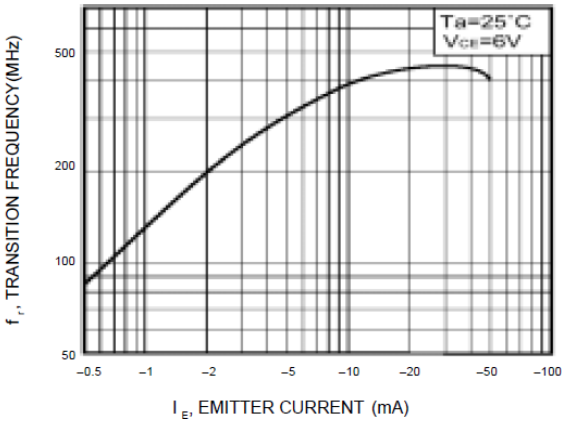
7. Collector-emitter saturation voltage vs. collector current (I)



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

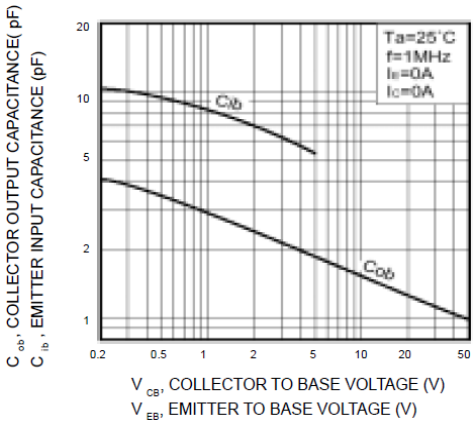


9. Gain bandwidth product vs. emitter current

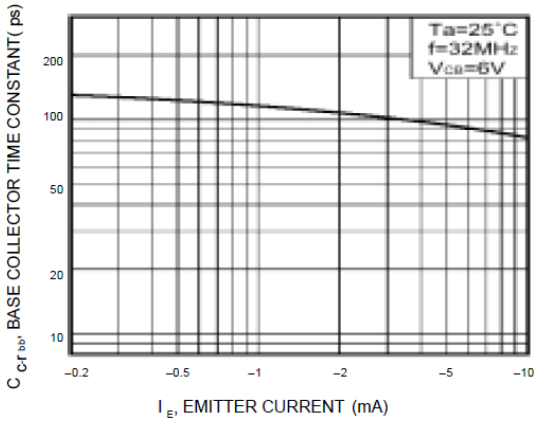


10. Collector output capacitance vs. collector-base voltage

Emitter input capacitance vs. emitter-base voltage

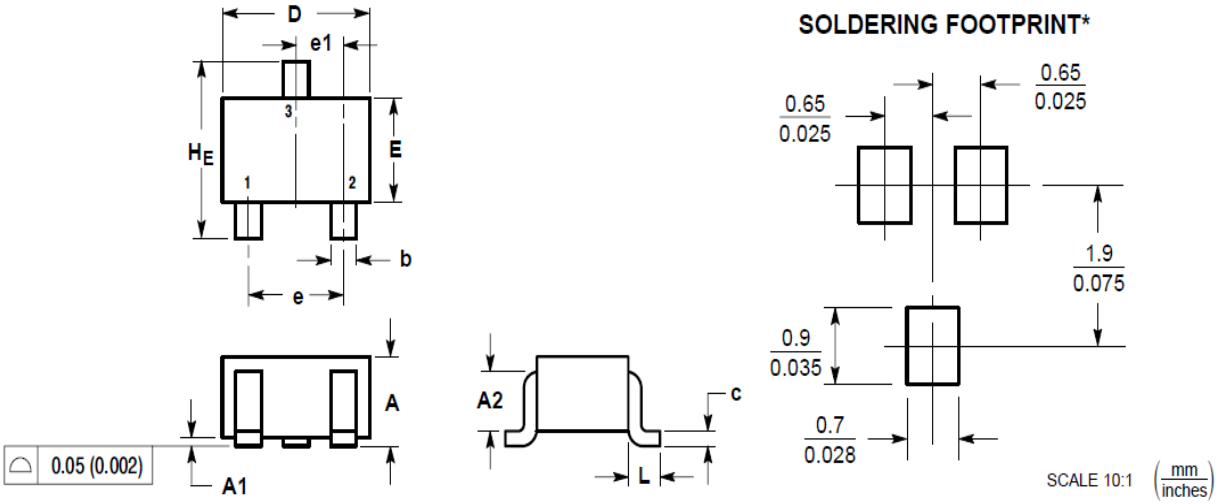


11. Base-collector time constant vs. emitter current



PACKAGE INFORMATION

Dimension in SC-70 Package (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.00	0.032	0.040
A1	0.00	0.10	0.000	0.004
A2	0.7 REF		0.028 REF	
b	0.30	0.40	0.012	0.016
c	0.10	0.25	0.004	0.010
D	1.80	2.20	0.071	0.087
E	1.15	1.35	0.045	0.053
e	1.20	1.40	0.047	0.055
e1	0.65 BSC		0.026 BSC	
L	0.425 REF		0.017 REF	
H_E	2.00	2.40	0.079	0.095

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