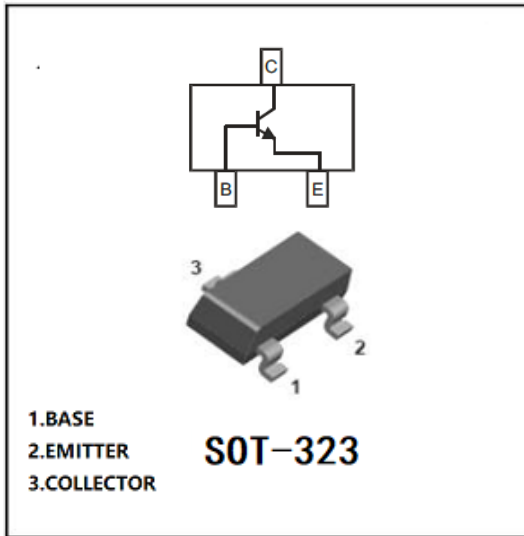


NPN General Purpose Amplifier



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- **Package:** SOT-323
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:**

2SC4081-Q	BQ
2SC4081-R	BR
2SC4081-S	BS

■Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	150	mA
Collector Power Dissipation	P_C	200	mW
Operation Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
2SC4081	F2	Approximate 0.005	3000	30000	120000	7" reel



2SC4081

RoHS
COMPLIANT

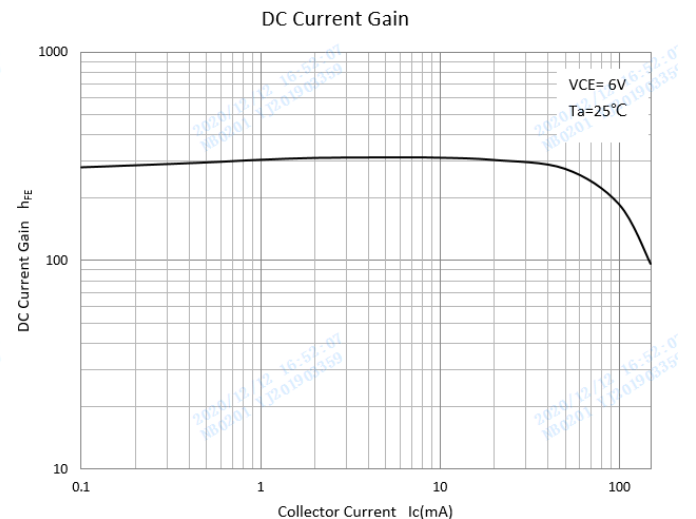
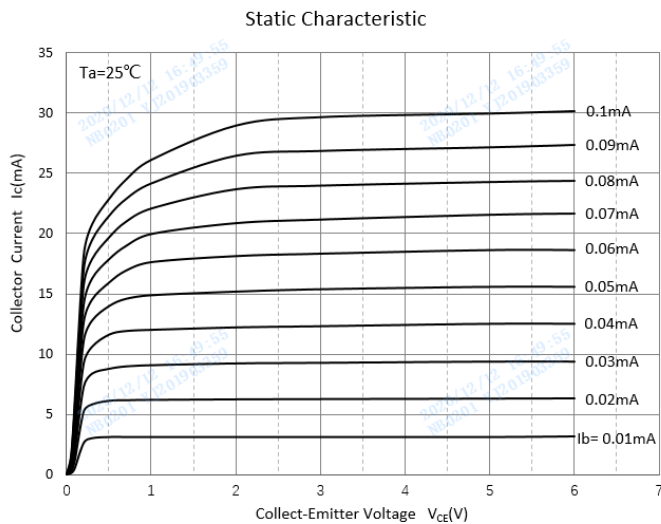
■Electrical Characteristics (Ta=25°C Unless otherwise specified)

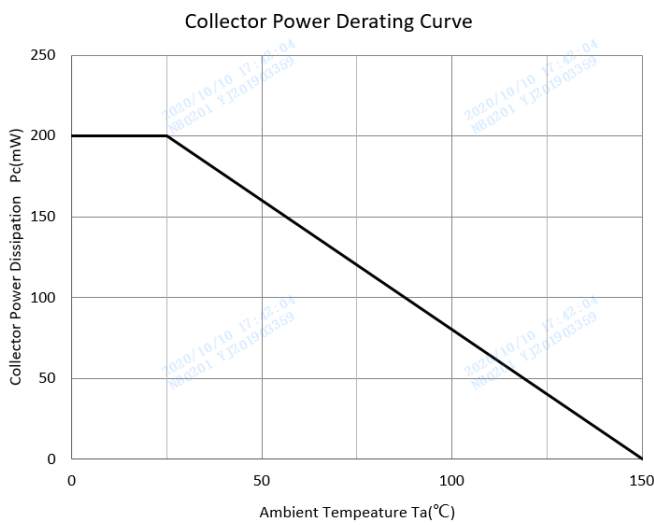
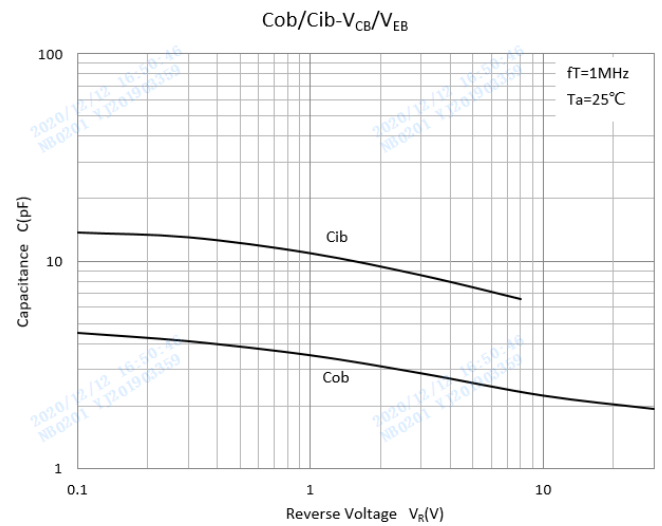
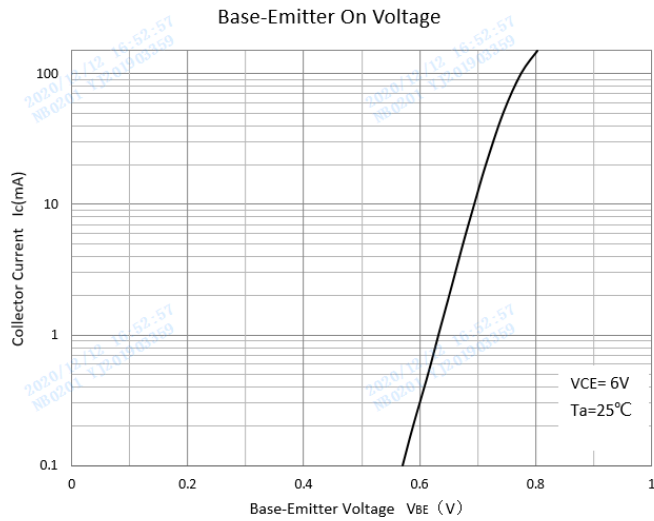
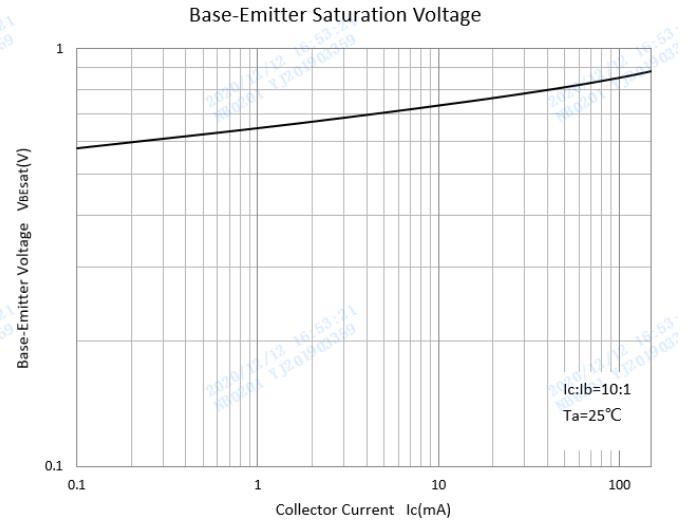
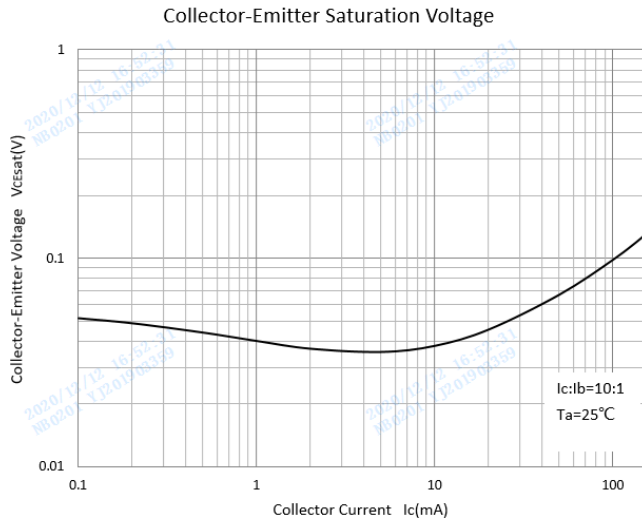
Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	V_{CBO}	V	$I_C=50\mu A, I_E=0$	60		
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=1mA, I_B=0$	50		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=50\mu A, I_C=0$	7		
Collector-base cut-off current	I_{CBO}	μA	$V_{CB}=60V, I_E=0$			0.1
Emitter-base cut-off current	I_{EBO}	μA	$V_{EB}=7V, I_C=0$			0.1
DC current gain	h_{FE}		$V_{CE}=6V, I_C=1mA$	120		560
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=50mA, I_B=5mA$			0.4
Output Capacitance	C_{ob}	V	$V_{CB}=12V, I_E=0, f=1MHz$		3	
Transition frequency	f_T	MHz	$V_{CE}=12V, I_C=2mA, f=30MHz$		180	

■ Classification of h_{FE}

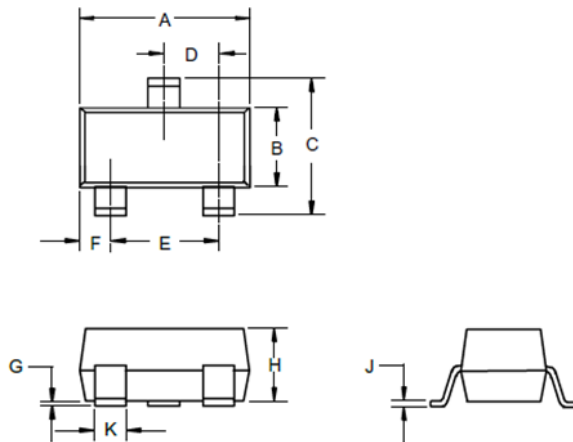
Rank	2SC4081-Q	2SC4081-R	2SC4081-S
Range	120-270	180-390	270-560

■Characteristics(Typical)



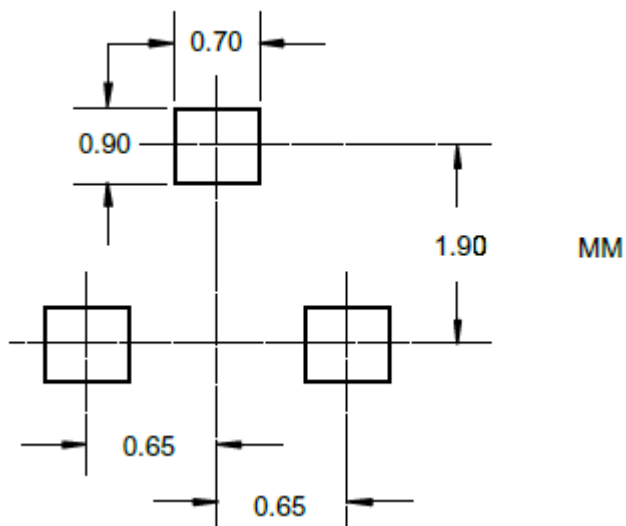


■ SOT-323 Package Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026Nominal		0.65Nominal		
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.039	0.90	1.00	
J	0.004	0.010	0.10	0.250	
K	0.006	0.016	0.15	0.40	

■ SOT-323 Soldering Footprint





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