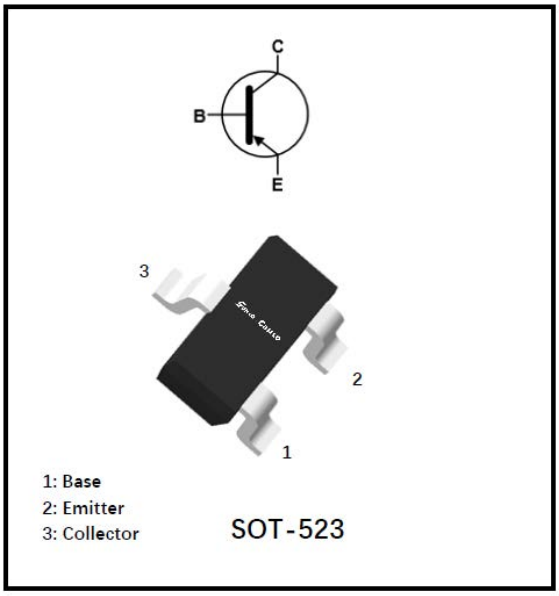
2SA1774

PNP General Purpose Amplifier



Features

- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- Epoxy meets UL-94 V-0 flammability rating, halogen-free

Mechanical Data

- **Package**: SOT-523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:**
  - 2SA1774-Q：FQ
  - 2SA1774-R：FR
  - 2SA1774-S：FS

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	V_{CEO}	V	I_C=-1.0mAdc, I_B=0	-50
Collector-Base Voltage	V_{CBO}	V	I_C=-50uAdc, I_E=0	-60
Emitter-Base Voltage	V_{EBO}	V	I_E=-50uAdc, I_C=0	-6
Collector Current	I_C	mA		-150
Collector Power Dissipation	P_C	mW		150
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	℃/W		833
Operation Junction Temperature	T_J	℃		-55 to +150
Storage Temperature	T_{STG}	℃		-55 to +150

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■Electrical Characteristics (Ta=25℃ unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-Emitter Voltage	V_{CEO}	V	I_C=-1.0mAdc, I_B=0	-50	-	--
Collector-Base Voltage	V_{CBO}	V	I_C=-50uAdc, I_E=0	-60	-	-
Emitter-Base Voltage	V_{EBO}	V	I_E=-50uAdc, I_C=0	-6	-	-
Collector-base Cut-off Current	I_{CBO}	uA	V_{CB}=-60Vdc	-	-	-0.1
Emitter-base cut-off current	I_{EBO}	uA	V_{EB}=-6Vdc	-	-	-0.1
DC Current Gain	h_{FE}		I_C=-1mAdc, V_{CE}=-6Vdc	120	-	560
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	I_C=-50mAdc, I_B=-5mAdc	-	-	-0.5
Collector-base Output Capacitance	Cobo	pF	V_{CB}=-12Vdc, f=1.0MHz，IE=0	-	-	5
Transition frequency	f_T	MHz	I_C=-2mA, V_{CE}=-12V, f=30MHz	-	140	-

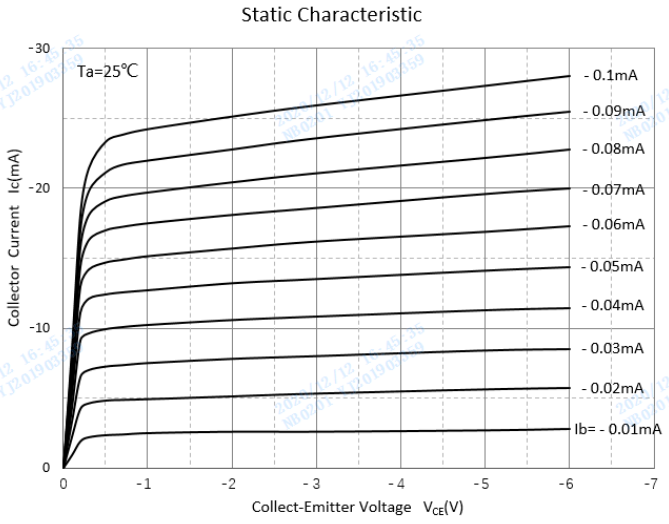
■ CLASSIFICATION OF HFE

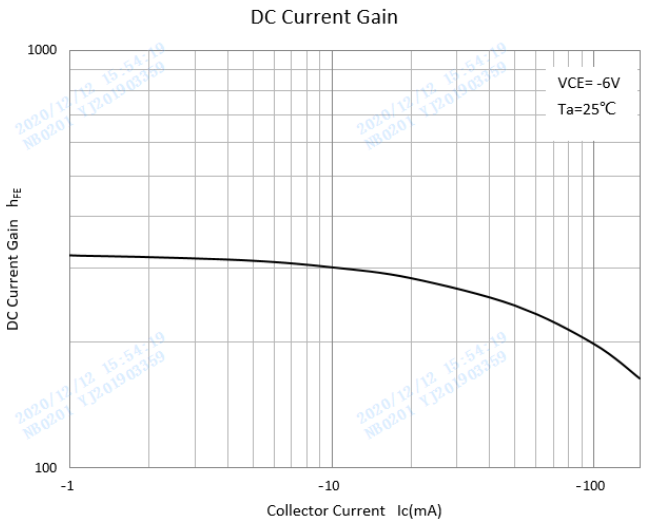
Rank	Q	R	S
Range	120-270	180-390	270-560

■ Ordering Information (Example)

Prefered P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
2SA1774	F2	Approximate 0.0027	3000	30000	120000	7” reel

■ Characteristics (Typical)





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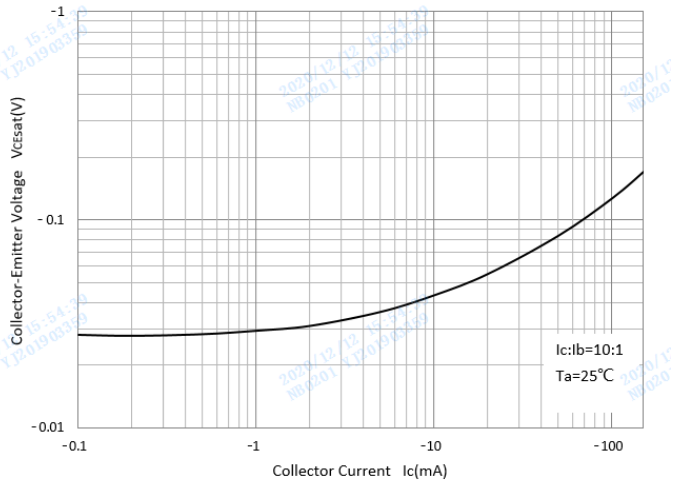
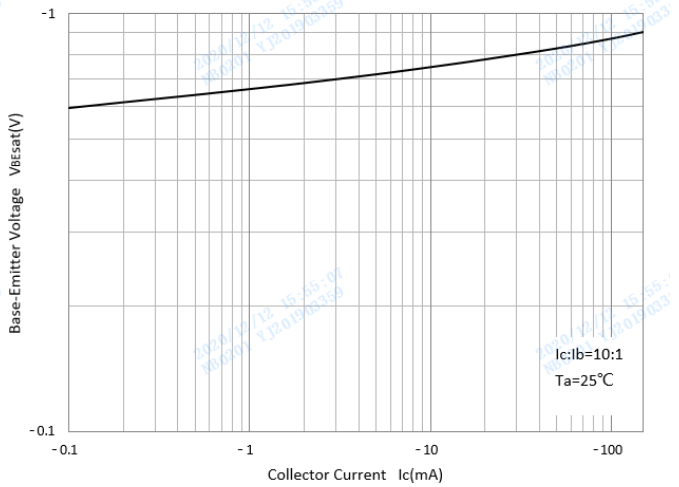
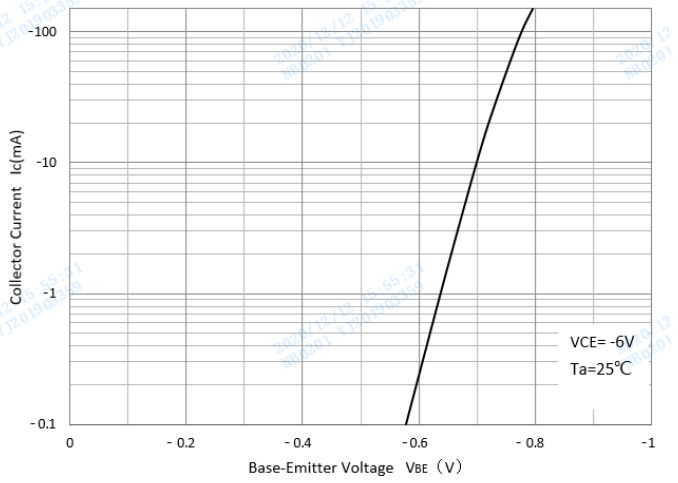
Collector-Emitter Saturation Voltage



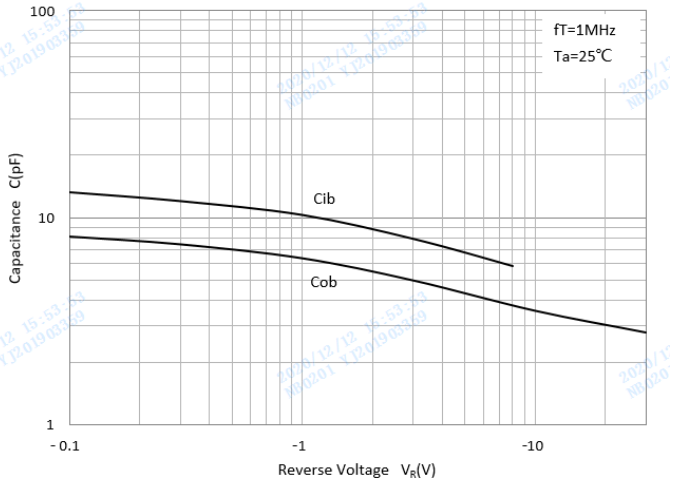
Base-Emitter Saturation Voltage



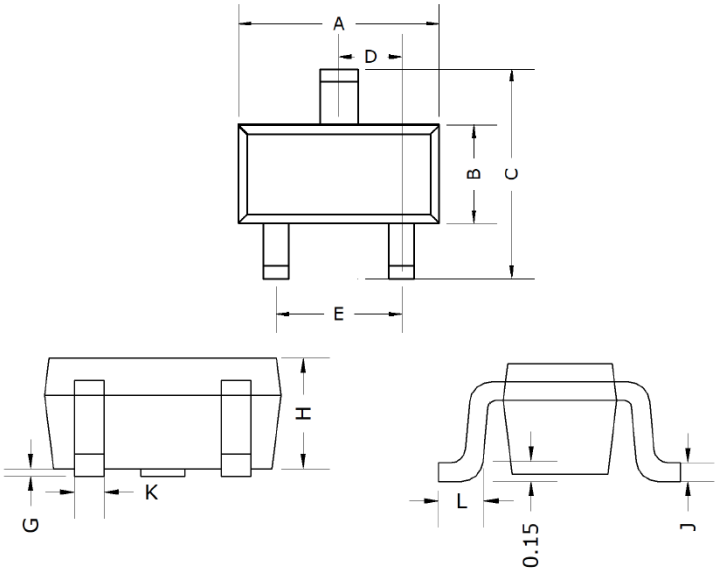
Base-Emitter On Voltage



Cob/Cib-V_{CB}/V_{EB}

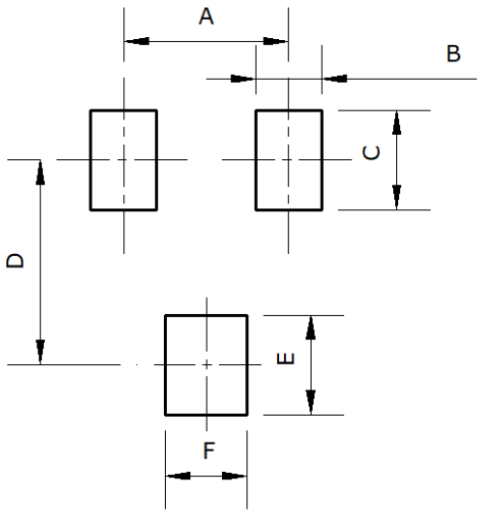


■ SOT-523 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.50	1.70
B	0.030	0.033	0.75	0.85
C	0.057	0.069	1.45	1.75
D	0.020TYP		0.50TYP	
E	0.035	0.043	0.90	1.10
G	0.000	0.004	0.00	0.10
H	0.024	0.031	0.60	0.80
J	0.004	0.008	0.10	0.20
K	0.006	0.014	0.15	0.35
L	0.010	0.018	0.26	0.46

■ SOT-523 Suggested Pad Layout



DIMENSIONS	
DIM	MM (TYP)
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50

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