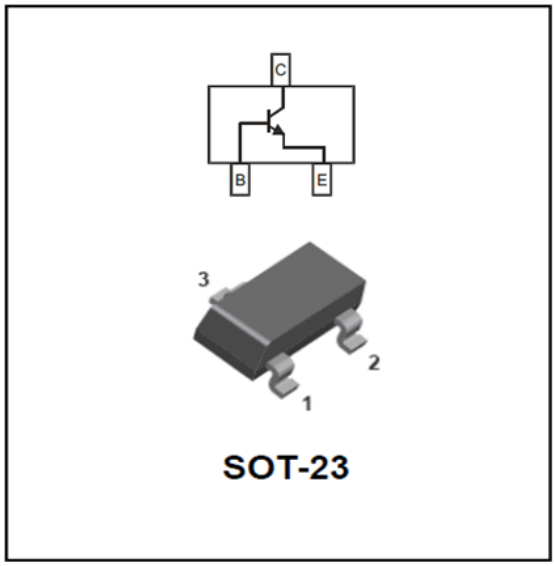
2SC3052

NPN Transistor



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix ”HF”
- Moisture Sensitivity Level 1
- Surface mount package ideally Suited for Automatic Insertion
- NPN

Mechanical Data

- **Package**: SOT-23
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking**:

2SC3052-E	LE
2SC3052-F	LF
2SC3052-G	LG

■ Maximum Ratings (Ta=25℃ unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	IC=100μA,IE=0	50
Collector-Emitter Voltage	V_{CEO}	V	IC =100uA,IB=0	50
Emitter-Base Voltage	V_{EBO}	V	IE=100μA,IC=0	6
Collector Current	I_C	A		0.2
Collector Power Dissipation	P_C	mW		150
Operation Junction Temperature	T_j	℃		150
Storage Temperature	T_{stg}	℃		-55 to +150

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

Item	Symbol	Unit	Conditions	Min	Type	Max
Collector-base breakdown voltage	V_{CBO}	V	IC=100μA,IE=0	50		
Collector-emitter breakdown voltage	V_{CEO}	V	IC =100uA,IB=0	50		
Emitter-base breakdown voltage	V_{EBO}	V	IE=100μA,IC=0	6		
Collector-base cut-off current	I_{CBO}	uA	V_{CB}=50 V ,IE=0			0.1
Emitter-base cut-off current	I_{EBO}	uA	V_{EB}=6 V , IC=0			0.1
DC current gain	$h_{FE}1$		VCE=6V,IC=1mA	150		800
	$h_{FE}2$		VCE=6V,IC=0.1mA	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=100mA,IB=10mA			0.3
Base-emitter saturation voltage	$V_{BE(sat)*}$	V	IC=100mA,IB=10mA			1
Transition frequency	f_T	MHz	VCE= 6V, IC=10mA		180	
Collector-base output capacitance	Cob	pF	V_{CB}=6V ,IE=0, f=1MHz			4

■ CLASSIFICATION OF HFE

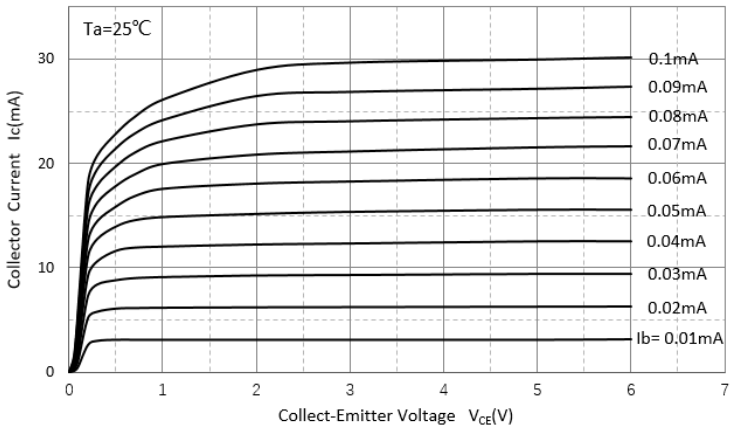
Rank	E	F	G
Range	150-300	250-500	400-800

■ Ordering Information (Example)

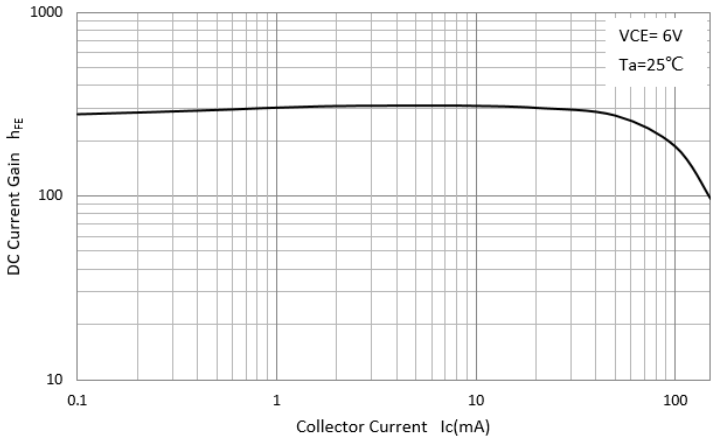
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
2SC3052	F2	Approximate 0.008	3000	30000	120000	7" reel

■ Characteristics(Typical)

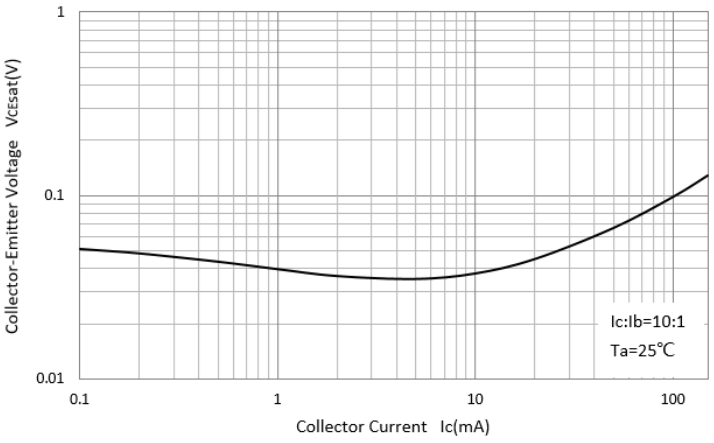
Static Characteristic



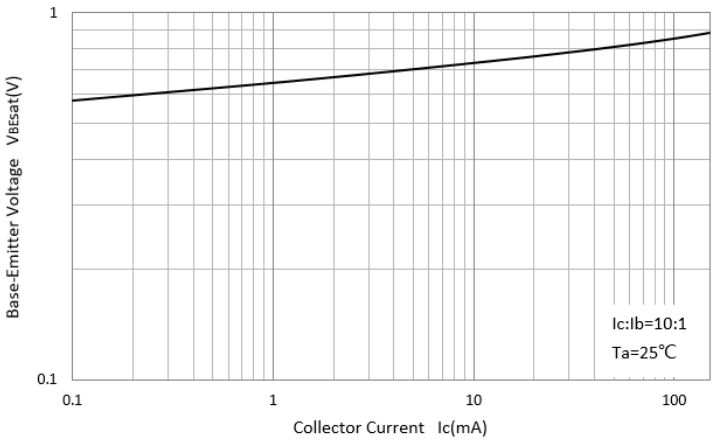
DC Current Gain



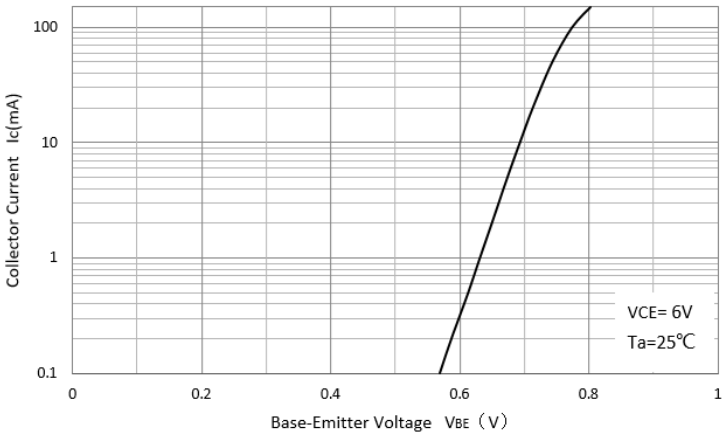
Collector-Emitter Saturation Voltage



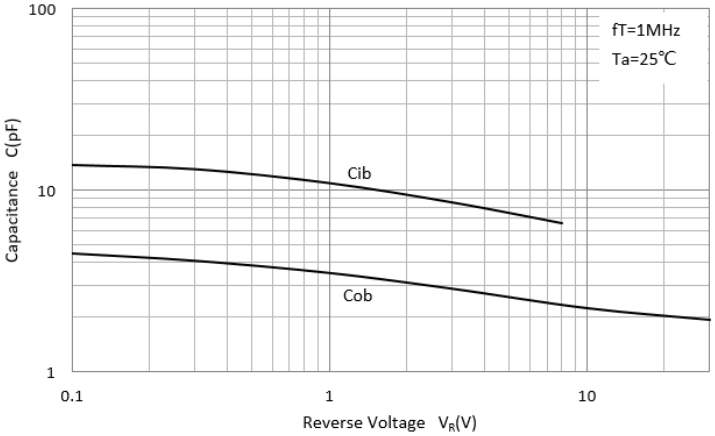
Base-Emitter Saturation Voltage



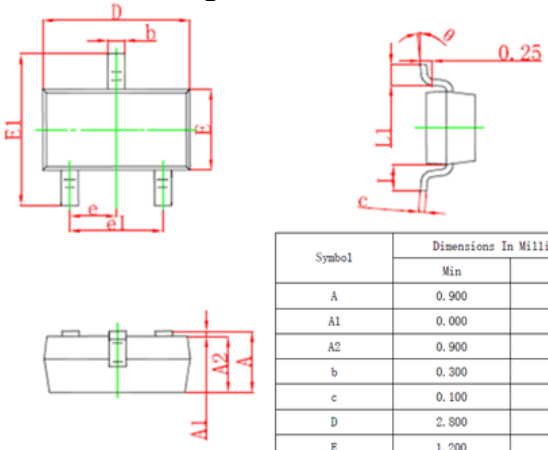
Base-Emitter On Voltage



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

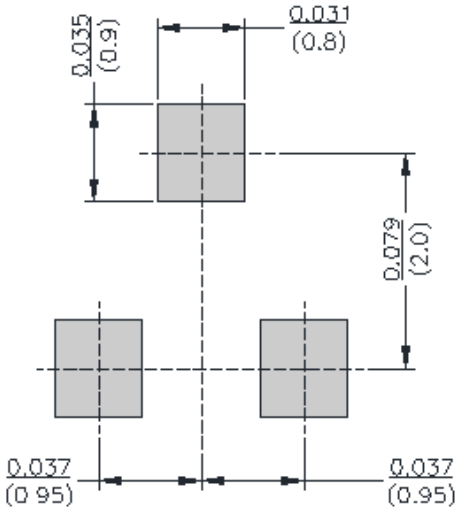


■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23 Soldering Footprint



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.