



Micro Commercial Components

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2SC3052-E
2SC3052-F
2SC3052-G

NPN General Purpose Amplifier

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Low collector to emitter saturation voltage
 $V_{CE(sat)}=0.3V \text{ max} (@I_C=100mA, I_B=10mA)$
- Excellent linearity of DC forward current gain
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

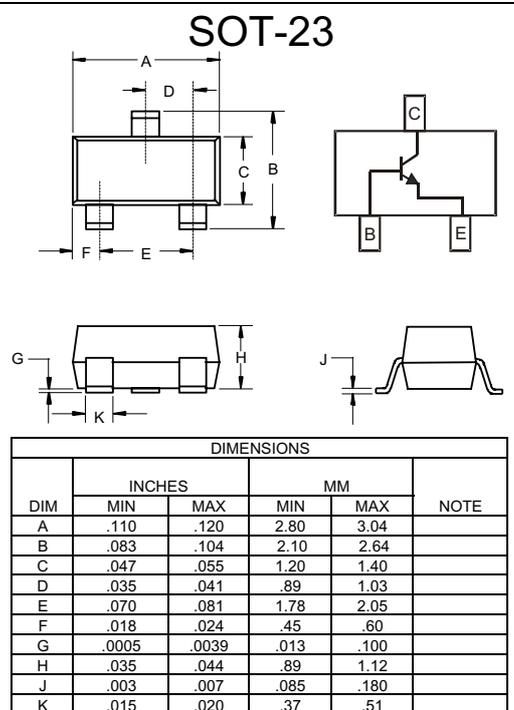
Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	50	V
V_{CBO}	Collector-Base Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6.0	V
I_C	Collector Current, Continuous	0.2	A
P_D	Power Dissipation	0.15	W
T_J	Operating Junction Temperature	-55 to +125	$^{\circ}C$
T_{STG}	Storage Temperature	-55 to +125	$^{\circ}C$

Electrical Characteristics @ 25°C Unless Otherwise Specified

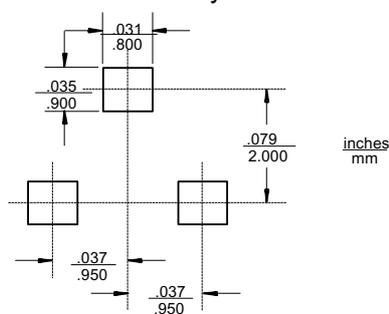
Symbol	Parameter	Min	Type	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=100\mu A, I_B=0$)	50			Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A, I_E=0$)	50			Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A, I_C=0$)	6.0			Vdc
I_{CBO}	Collector cut-off Current ($V_{CB}=50Vdc, I_E=0$)			0.1	μA
I_{EBO}	Emitter cut-off Current ($V_{EB}=6Vdc, I_C=0$)			0.1	μA
h_{FE}	DC Current Gain ($I_C=1.0mA, V_{CE}=6.0Vdc$) ($I_C=0.1mA, V_{CE}=6.0Vdc$)	150 50		800	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=100mA, I_B=10mA$)			0.3	Vdc
$V_{BE(sat)}$	Base-Emitter Voltage ($I_C=100mA, I_B=10mA$)			1.0	Vdc
f_T	Transition Frequency ($I_C=10mA, V_{CE}=6Vdc$)	180			MHz
C_{ob}	Collector output capacitance ($I_E=0, V_{CE}=6Vdc, f=1MHz$)			4.0	pF
NF	Noise figure ($I_E=0.1mA, V_{CE}=6Vdc, f=1KHz, R_G=2K\Omega$)			15	dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	E	F	G
Range	150-300	250-500	400-800
MARKING	LE	LF	LG



Suggested Solder Pad Layout





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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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