



NPN 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: 1P

Maximum Ratings (Ta=25 Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	V_{CEO}	V	$I_C=10\text{mAdc}$, $I_B=0$	40
Collector-Base Voltage	V_{CBO}	V	$I_C=10\text{uAdc}$, $I_E=0$	75
Emitter-Base Voltage	V_{EBO}	V	$I_E=10\text{uAdc}$, $I_C=0$	6



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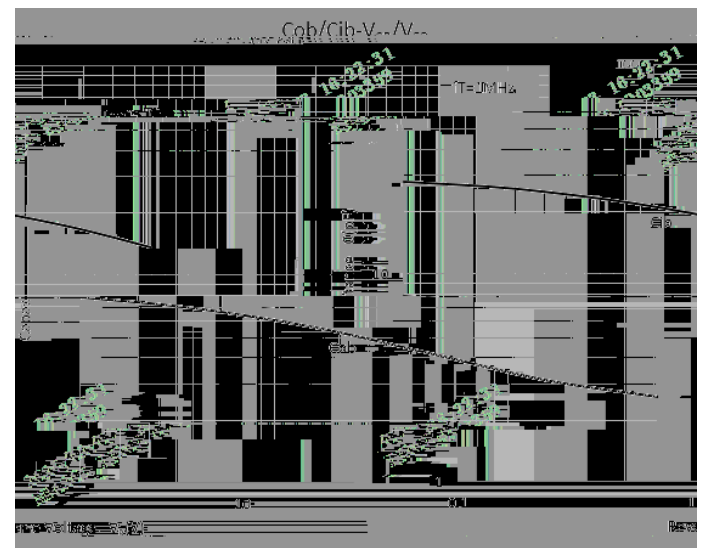
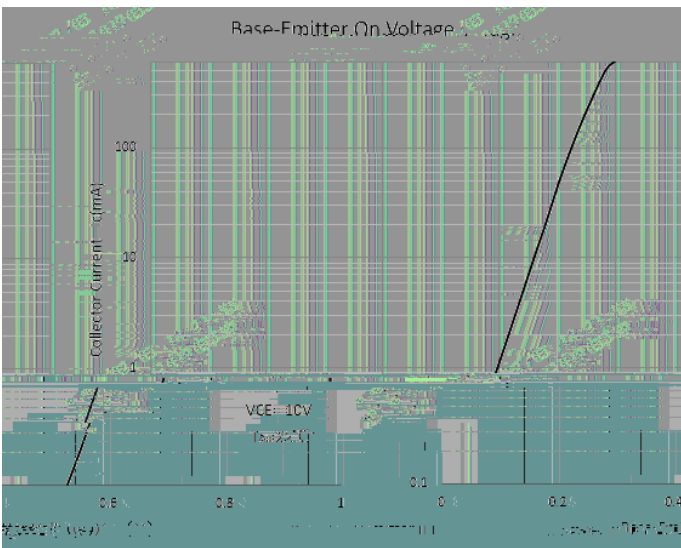
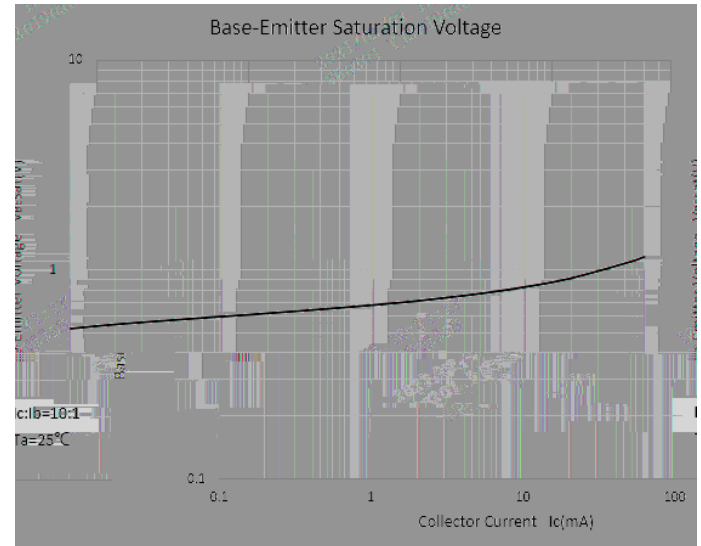
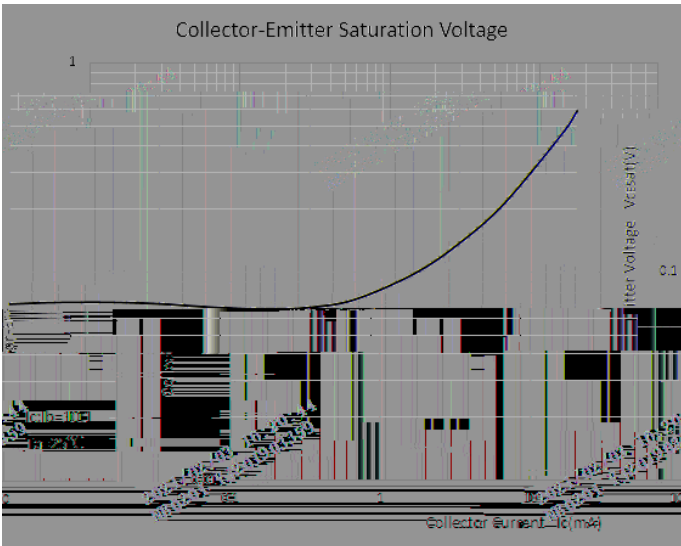
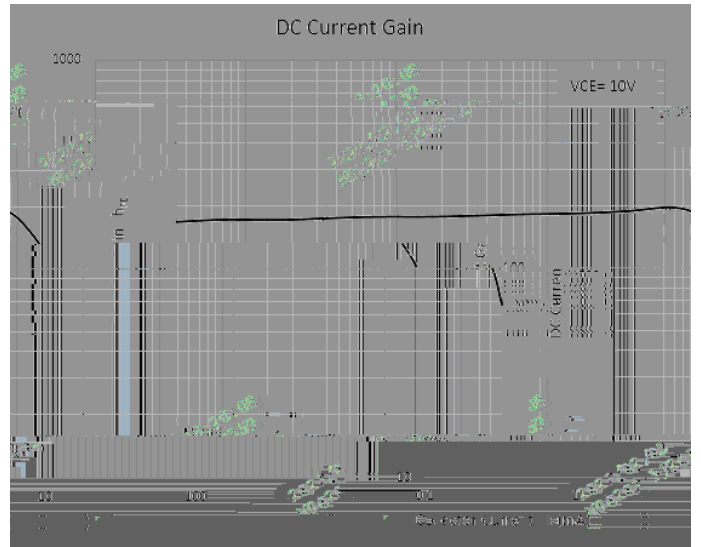
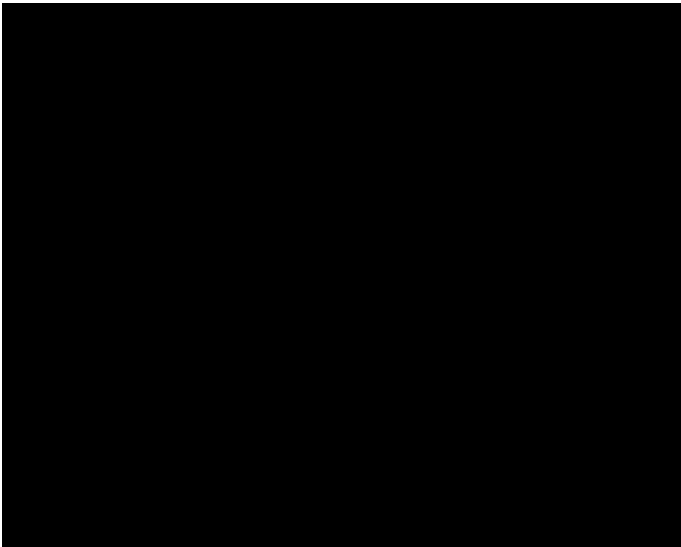
Electrical Characteristics (Ta=25 unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Voltage	V_{CE0}	V	$I_C=10\text{mA}, I_B=0$	40	
Collector-Base Voltage	V_{CB0}	V	$I_C=10\mu\text{A}, I_E=0$	75	
Emitter-Base Voltage	V_{EB0}	V	$I_E=10\mu\text{A}, I_C=0$	6	
Collector-base Cut-off Current	I_{CBO}	nA	$V_{CB}=70\text{Vdc}$		100
Emitter-base cut-off current	I_{EBO}	nA	$V_{EB}=3\text{Vdc}$		100
Collector-emitter Cut-off Current	I_{CEX}	nA	$V_{CE}=60\text{Vdc}, V_{EB}=3\text{Vdc}$		10
DC Current Gain	h_{FE}	I_C	$I_C=0.1\text{mA}, V_{CE}=10\text{Vdc}$	35	
			$I_C=1\text{mA}, V_{CE}=10\text{Vdc}$	50	



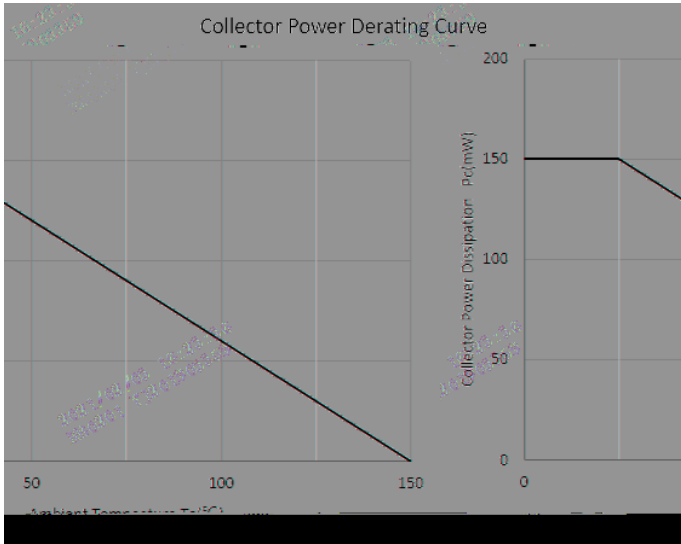
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Characteristics (Typical)

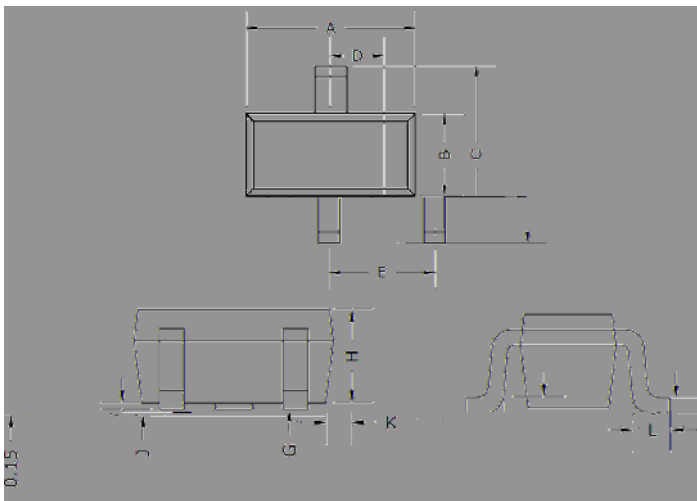




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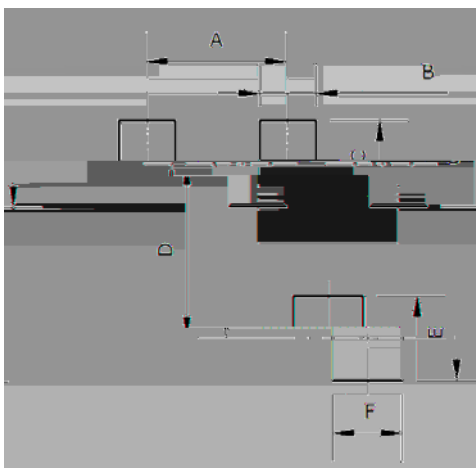


SOT-523 Package Outline Dimensions



		DIMENSIONS			
		INCHES		MM	
		MIN.	MAX.	MIN.	MAX.
1	A	0.0150	0.0175	0.38	0.45
2	B	0.0150	0.0175	0.38	0.45
3	C	0.0150	0.0175	0.38	0.45
4	D	0.0040	0.0050	0.10	0.125
5	E	0.0040	0.0050	0.10	0.125
6	F	0.0040	0.0050	0.10	0.125
7	G	0.0040	0.0050	0.10	0.125
8	H	0.0040	0.0050	0.10	0.125
9	I	0.0040	0.0050	0.10	0.125
10	J	0.0040	0.0050	0.10	0.125
11	K	0.0040	0.0050	0.10	0.125
12	L	0.0040	0.0050	0.10	0.125

SOT-523 Suggested Pad Layout



DIMENSIONS	
DIM	MIN (TYP)
A	1.00
B	0.40
C	0.60
D	1.24
E	0.70 (0.60)
F	0.50



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