Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

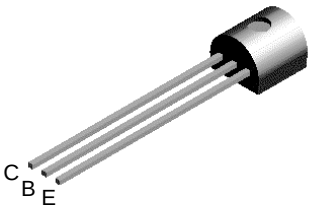
S8050

NPN Silicon Transistors

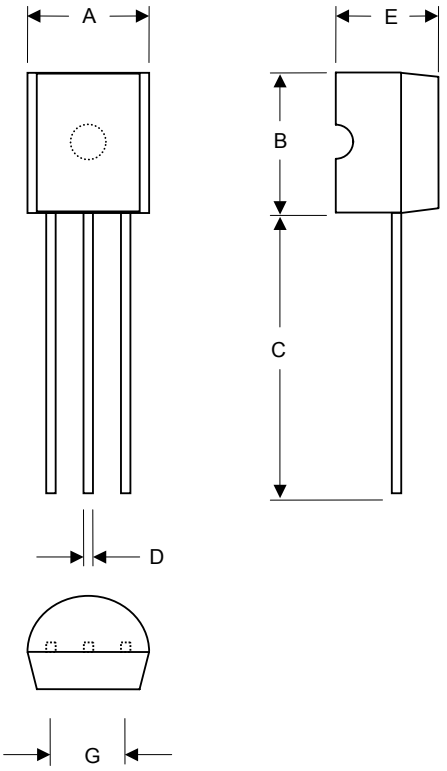
Features

- TO-92 Plastic-Encapsulate Transistors
- Capable of 0.625Watts(Tamb=25°C) of Power Dissipation.
- Collector-current 0.5A
- Collector-base Voltage 40V
- Operating and storage junction temperature range: -55°C to +150°C
- Marking Code: S8050

Pin Configuration



TO-92



Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=100uAdc, I_E=0)	40	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=0.1mAdc, I_B=0)	25	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I_E=100uAdc, I_C=0)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current (V_{CB}=40Vdc, I_E=0)	---	0.1	uAdc
I_{CEO}	Collector Cutoff Current (V_{CE}=20Vdc, I_B=0)	---	0.1	uAdc
I_{EBO}	Emitter Cutoff Current (V_{EB}=3.0Vdc, I_C=0)	---	0.1	uAdc
ON CHARACTERISTICS				
$h_{FE(1)}$	DC Current Gain (I_C=50mAdc, V_{CE}=1.0Vdc)	85	300	---
$h_{FE(2)}$	DC Current Gain (I_C=500mAdc, V_{CE}=1.0Vdc)	50	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=500mAdc, I_B=50mAdc)	---	0.6	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=500mAdc, I_B=50mAdc)	---	1.2	Vdc
V_{EB}	Base- Emitter Voltage (I_E=100mAdc)	---	1.4	Vdc
SMALL-SIGNAL CHARACTERISTICS				
f_T	Transistor Frequency (I_C=20mAdc, V_{CE}=6.0Vdc, f=30MHz)	150	---	MHz

CLASSIFICATION OF $H_{FE(1)}$

Rank	B	C	D
Range	85-160	120-200	160-300

DIMENSIONS

DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	.175	.185	4.45	4.70	
B	.175	.185	4.46	4.70	
C	.500	---	12.7	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	