Micro Commercial Components
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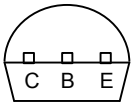
MPSA55
MPSA56

PNP Silicon Amplifier Transistor

Features

- Capable of 1.5Watts of Power Dissipation.
- Collector-current 500mA
- Collector-base Voltage 80V
- Operating and storage junction temperature range: -55°C to +150°C

Pin Configuration
Bottom View



Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	80	V
V_{CBO}	Collector-Base Voltage	80	V
V_{EBO}	Emitter-Base Voltage	4.0	V
I_C	Collector Current Continuous	500	mA
P_D	Total Device Dissipation @T_A=25°C Derate above 25°C	625 5.0	mW mW/°C
P_D	Total Device Dissipation @T_A=25°C Derate above 25°C	1.5 12	W mW/°C
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter		Min	Max	Units
OFF CHARACTERISTICS					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage[1] (I_C=1.0mAdc, I_B=0)	MPSA55 MPSA56	60 80		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I_E=100uAdc, I_C=0)		4.0		Vdc
I_{CES}	Collector Cutoff Current (V_{CE}=60Vdc, I_B=0)			0.1	uAdc
I_{CBO}	Collector Cutoff Current (V_{CB}=60Vdc, I_E=0) (V_{CB}=80Vdc, I_E=0)	MPSA55 MPSA56		0.1 0.1	uAdc
ON CHARACTERISTICS [1]					
$h_{FE(1)}$	DC Current Gain (I_C=10mAdc, V_{CE}=1.0Vdc)		100		
$h_{FE(2)}$	DC Current Gain (I_C=100mAdc, V_{CE}=1.0Vdc)		100		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=100mAdc, I_B=10mAdc)			0.25	Vdc
$V_{BE(on)}$	Base-Emitter Saturation Voltage (I_C=100mAdc, V_{CE}=1.0Vdc)			1.2	Vdc
SMALL-SIGNAL CHARACTERISTICS					
f_T	Current-Gain – Bandwidth Product[3] (I_C=100mAdc, V_{CE}=1.0Vdc, f=100MHz)	MPSA55 MPSA56	50		MHz

1. Pulse Test: Pulse Width<300us, Duty Cycle<2.0%
2. f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity.

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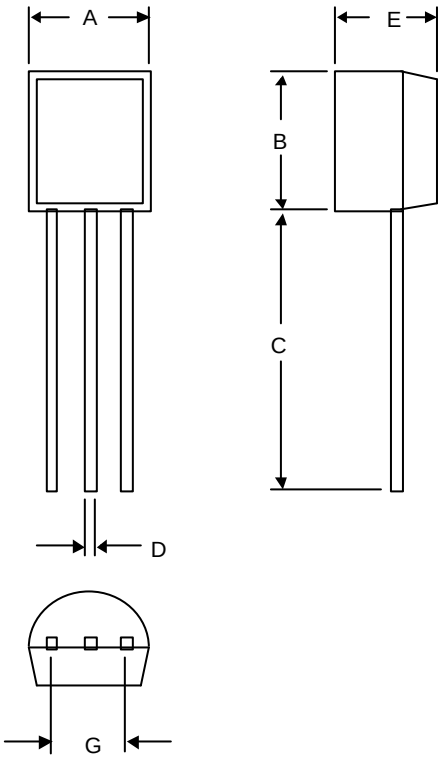

DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.175	.185	4.45	4.70	
B	.175	.185	4.46	4.70	
C	.500	---	12.7	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	