

MPSA55 MPSA56

Features

- Halogen free available upon request by adding suffix "-HF"
- 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
- Marking: MPSA55, MPSA56
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

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 @ $T_A=25^\circ\text{C}$ Derate above 25°C	625 5.0	mW mW/ $^\circ\text{C}$
P_D	Total Device Dissipation @ $T_C=25^\circ\text{C}$ Derate above 25°C	1.5 12	W mW/ $^\circ\text{C}$
T_J	Junction Temperature	-55 to +150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 to +150	$^\circ\text{C}$

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ⁽¹⁾ ($I_C=1.0\text{mA}$, $I_B=0$)	MPSA55 60 MPSA56 80		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu\text{A}$, $I_C=0$)	4.0		Vdc
I_{CES}	Collector Cutoff Current ($V_{CE}=60\text{Vdc}$, $I_B=0$)		0.1	μAdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=60\text{Vdc}$, $I_E=0$) ($V_{CB}=80\text{Vdc}$, $I_E=0$)	MPSA55 0.1 MPSA56 0.1		μAdc

ON CHARACTERISTICS⁽¹⁾

$h_{FE(1)}$	DC Current Gain ($I_C=10\text{mA}$, $V_{CE}=1.0\text{Vdc}$)	100		
$h_{FE(2)}$	DC Current Gain ($I_C=100\text{mA}$, $V_{CE}=1.0\text{Vdc}$)	100		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=100\text{mA}$, $I_B=10\text{mA}$)		0.25	Vdc
$V_{BE(on)}$	Base-Emitter Saturation Voltage ($I_C=100\text{mA}$, $V_{CE}=1.0\text{Vdc}$)		1.2	Vdc

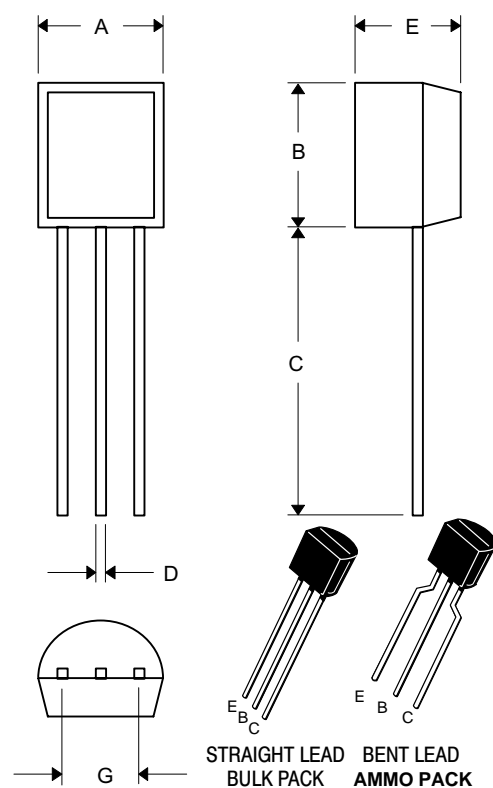
SMALL-SIGNAL CHARACTERISTICS

f_T	Current-Gain – Bandwidth Product ⁽³⁾ ($I_C=100\text{mA}$, $V_{CE}=1.0\text{Vdc}$, $f=100\text{MHz}$)	MPSA55 50 MPSA56		MHz
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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.

PNP Silicon Amplifier Transistor

TO-92

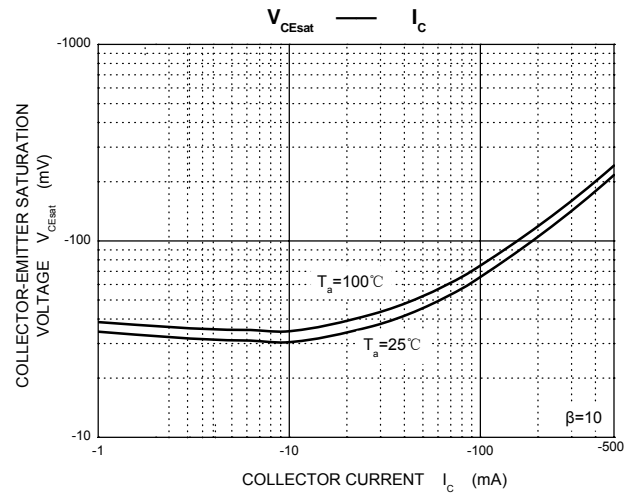
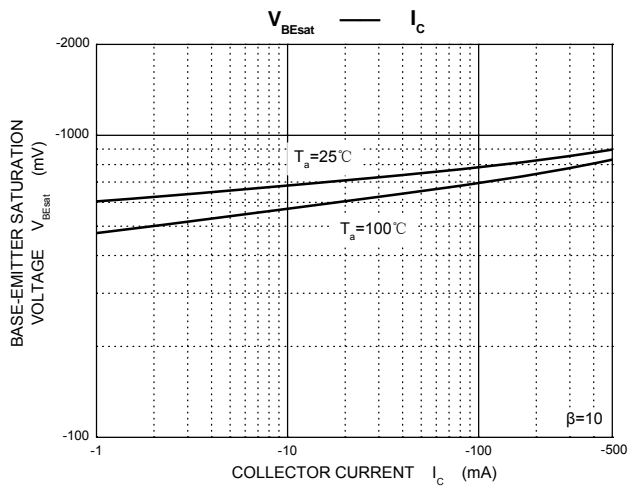
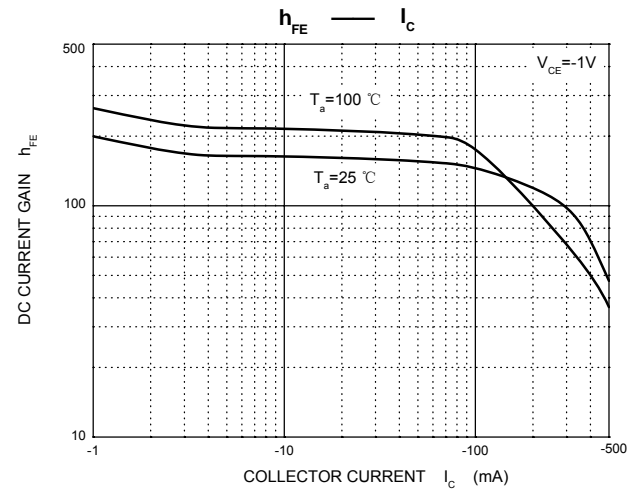
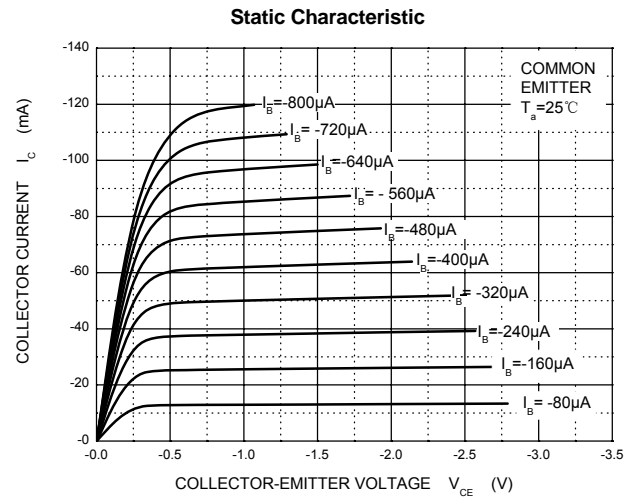


DIMENSIONS

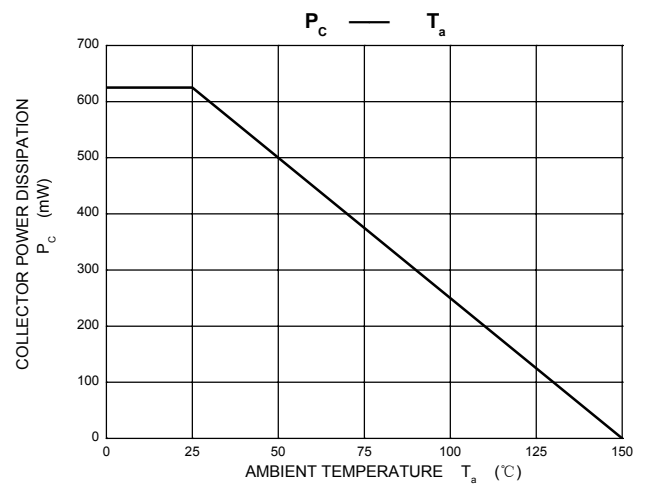
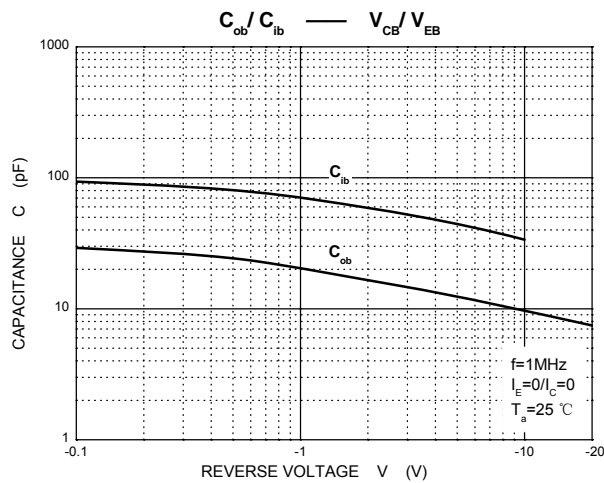
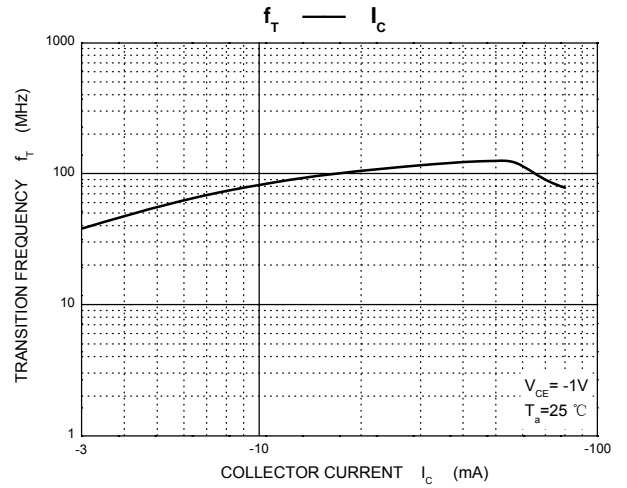
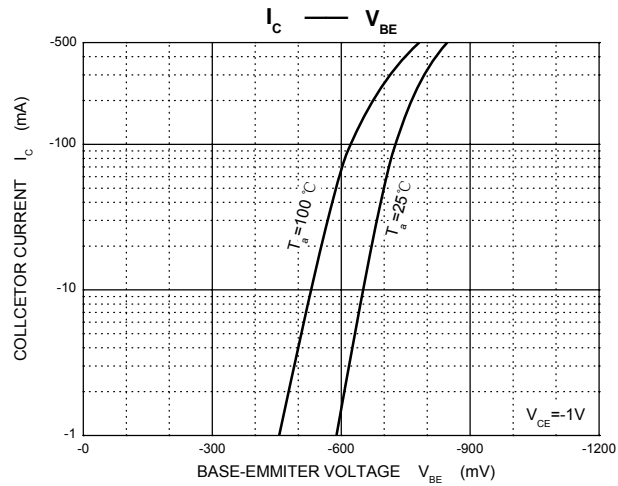
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

* For ammo packing detailed specification, click here to visit our website of product packaging for details.

Typical Characteristics



Typical Characteristics



Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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