



Micro Commercial Components

Micro Commercial Components  
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# MPSA06

## NPN Small Signal Transistor 625 mW

### Features

- NPN Silicon Epitaxial planar Transistor for switching and amplifier applications
- As complementary type, the PNP transistor is MPSA56
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

### Mechanical Data

- Marking: MPSA06
- Weight: 0.18 grams (Approx.)

### Maximum Ratings @ 25°C Unless Otherwise Specified

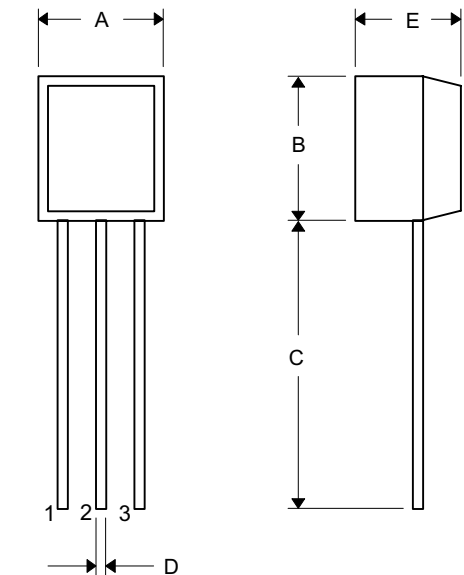
Characteristic	Symbol	Value	Unit
Collect to Base Voltage	$V_{CBO}$	80	V
Collect to Emitter Voltage	$V_{CEO}$	80	V
Emitter to Base Voltage	$V_{EBO}$	4.0	V
Collect Current	$I_C$	500	mA
Total Power Dissipation @ $T_A=25^\circ\text{C}$	$P_{tot}$	625	mW
Total Power Dissipation @ $T_C=25^\circ\text{C}$	$P_{tot}$	1.5	W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to 150	$^\circ\text{C}$

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Charateristic	Symbol	Min	Max	Unit	Test Cond.
Collector Cut-off Current	$I_{CBO}$		100	nA	$V_{CB}=80\text{V}, I_E=0$
Collector to Emitter Saturatuion Voltage	$V_{CE(sat)}$		0.25	V	$I_C=100\text{mA}, I_B=10\text{mA}$
DC Current Gain	$h_{FE}$	100	100		$V_{CE}=1\text{V}, I_C=10\text{mA}$ $V_{CE}=1\text{V}, I_C=100\text{mA}$
Gain Bandwidth Product	$f_T$	100		MHZ	$V_{CE}=2\text{V}, I_C=20\text{mA}, f=100\text{MHZ}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	80		V	$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	4		V	$I_E=100\mu\text{A}, I_C=0$
Base-Emitter ON Voltage	$V_{BE(ON)}$		1.2	V	$I_C=10\text{mA}, I_B=1\text{mA}$

**Note:** Valid provided that leads are kept at ambient temperature.

### TO-92



1. EMITTER
2. BASE
3. COLLECTOR

DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	



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