



## MPSA42

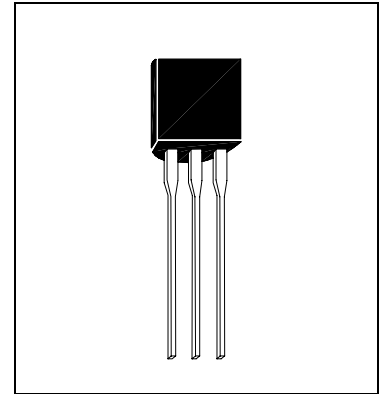
NPN EPITACIAL PLANAR TRANSISTOR

### Description

The A42 is high voltage transistor.

### Features

- High Collector-Emitter Breakdown Voltage
- Low Collector-Emitter Saturation Voltage.
- For Complementary Use with PNP Type A92.



### Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature ..... -55~+150°C
  - Junction Temperature ..... +150°C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)
  - VCBO Collector to Base Voltage ..... 300 V
  - VCEO Collector to Emitter Voltage ..... 300 V
  - VEBO Emitter to Base Voltage ..... 6 V
  - IC Collector Current ..... 500 mA

### Characteristics (Ta=25°C)

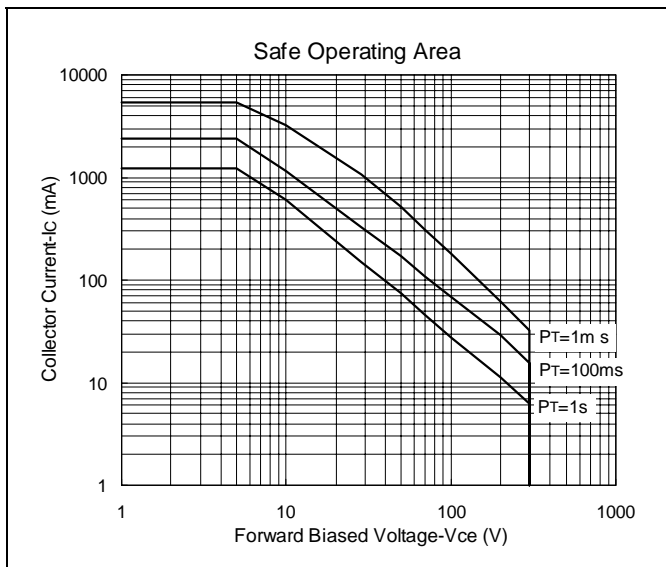
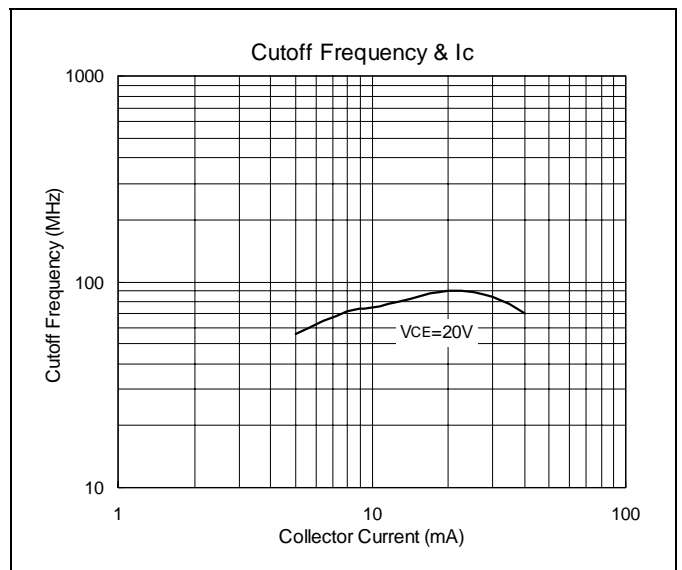
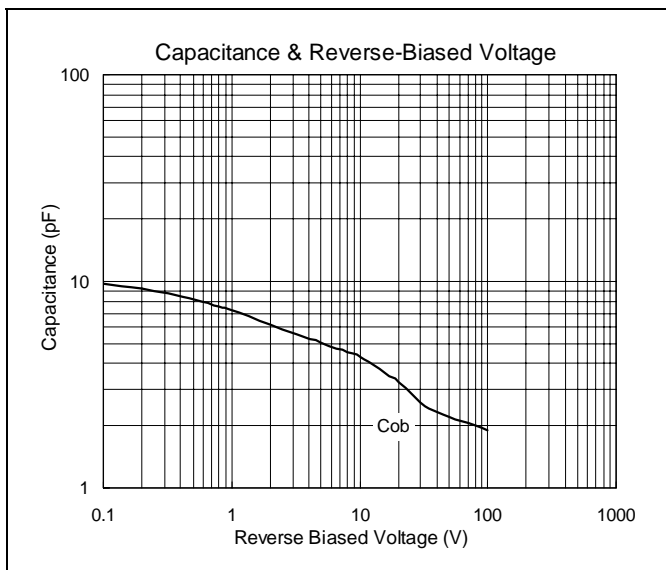
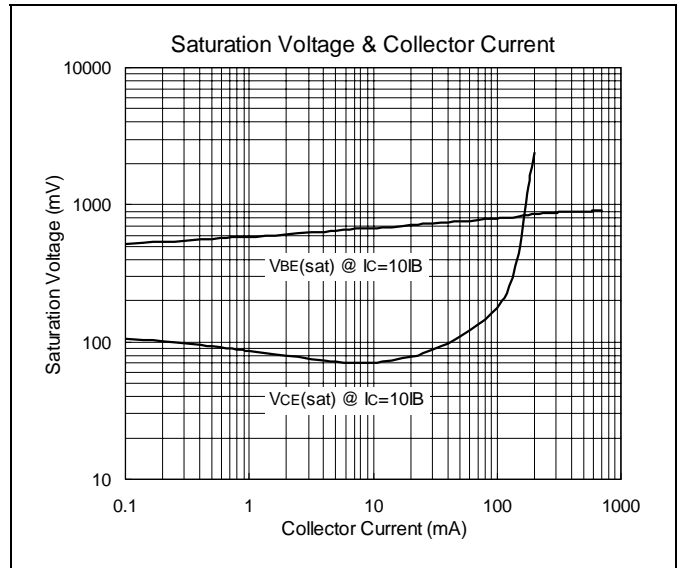
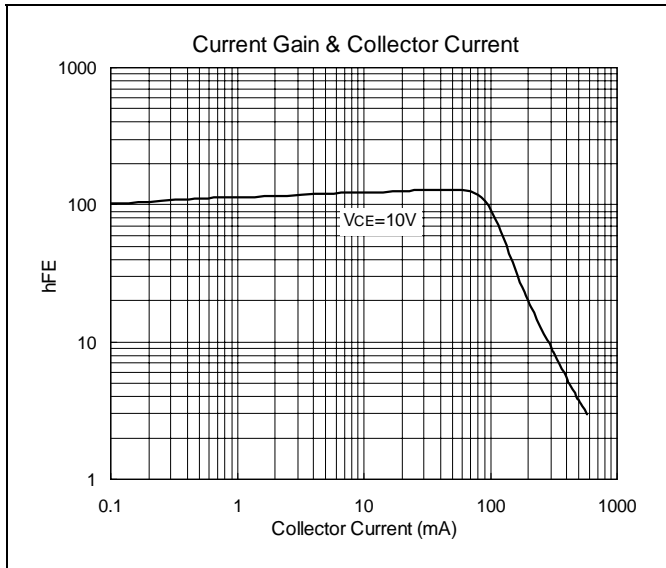
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	300	-	-	V	IC=100uA, IE=0
BVCEO	300	-	-	V	IC=1mA, IB=0
BVEBO	6	-	-	V	IE=10uA, IC=0
ICBO	-	-	100	nA	VCB=260V, IE=0
IEBO	-	-	100	nA	VEB=6V, IC=0
VCE(sat)	-	-	350	mV	IC=20mA, IB=2mA
VBE(sat)	-	-	900	mV	IC=20mA, IB=2mA
hFE1	25	-	-		IC=1mA, VCE=10V
hFE2	40	-	-		IC=10mA, VCE=10V
hFE3	40	-	-		IC=30mA, VCE=10V
fT	50	-	-	MHz	IC=10mA, VCE=20V, f=100MHZ
Cob	-	-	3	pF	VCB=20V, f=1MHz, IE=0

### Classification Of Rank

Rank	hFE1	hFE2	hFE3	VCE(sat)
NS	>80	>120	>120	<200mV
N	>25	>40	>40	<350mV

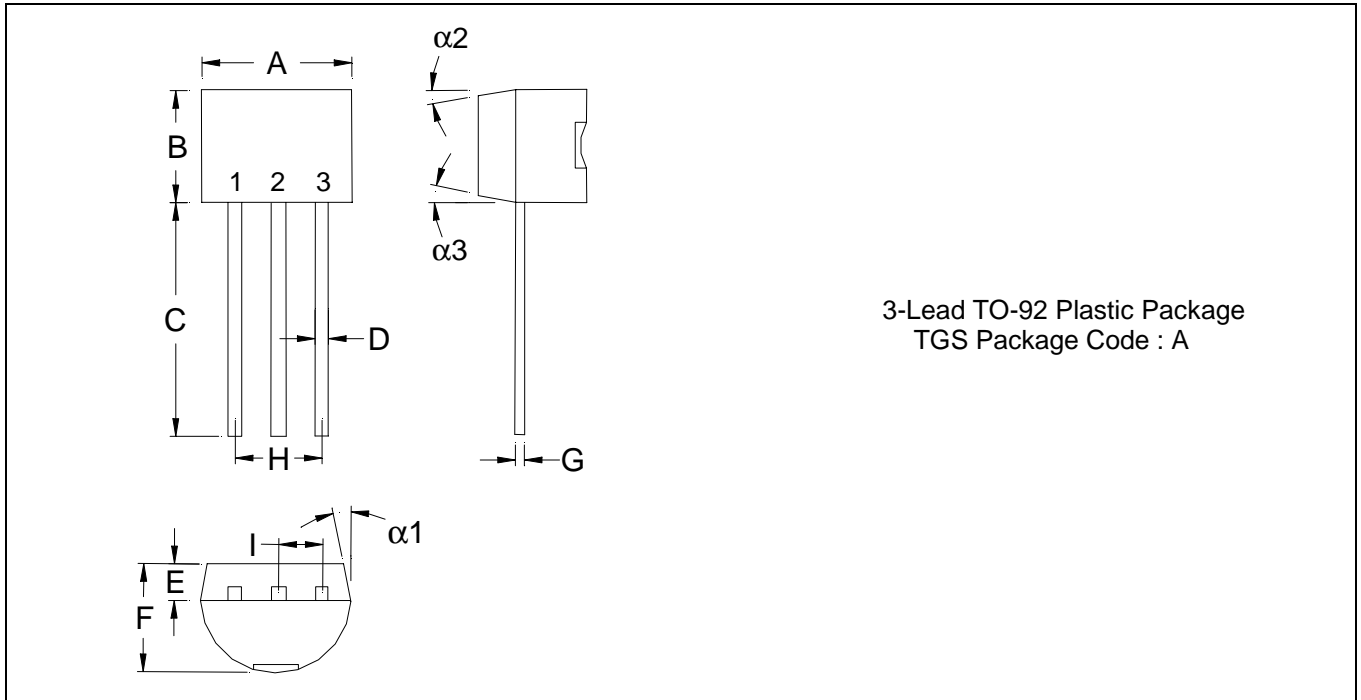


## Characteristics Curve





## TO-92 Dimension



\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°