

PNP Plastic-Encapsulate Transistors

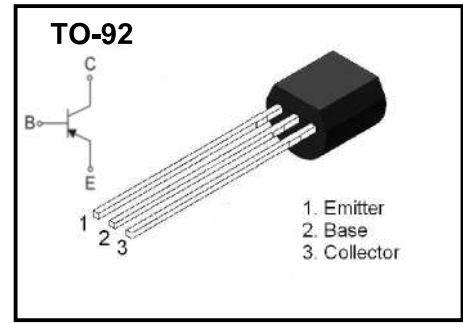
High Voltage Transistor

◆Complement to MPSA42

Marking Code

MPSA92

YFW MPSA92



Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	-300	V
Collector-Emitter Voltage	BV_{CEO}	-300	V
Emitter-Base Voltage	BV_{EBO}	-5	V
Collector Current	I_C	-500	mA
Collector Power Dissipation	P_D	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55 ~ +150	℃

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-300			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-300			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -200V, I_E = 0$			0.25	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C = 0$			0.25	μA
DC current gain	h_{FE}	$V_{CE} = 10V, I_B = 1mA$ $V_{CE} = 10V, I_B = 10mA$ $V_{CE} = 10V, I_B = 30mA$	25 40 40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20mA, I_B = 2mA$			-0.5	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C = 20mA, I_B = 2mA$			-0.9	V
Transition frequency	f_T	$V_{CE} = -20V, I_B = -10mA$	40			MHz

Typical Characteristics

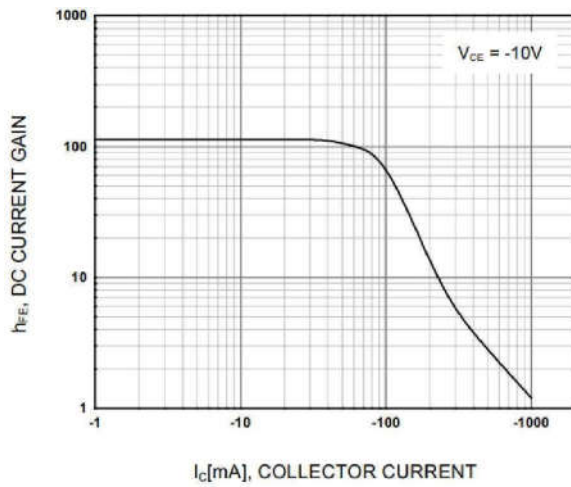


Figure 1. DC current Gain

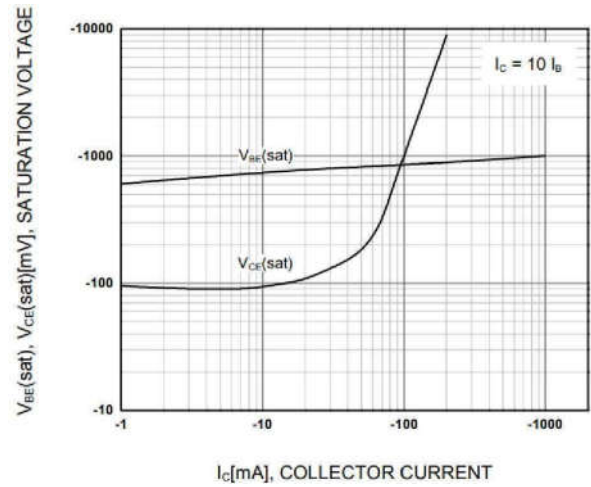


Figure 2. Saturation Voltage

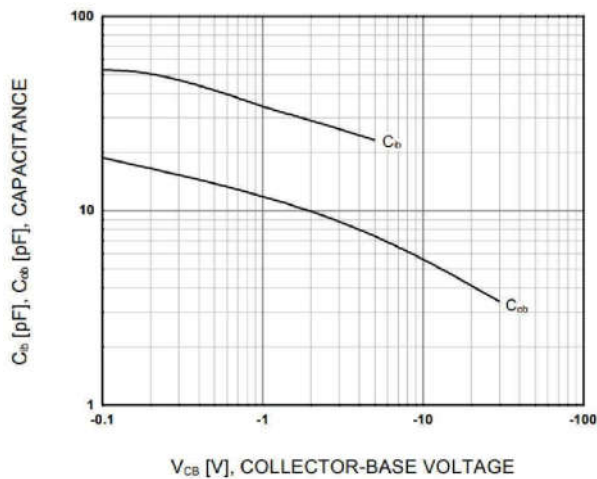


Figure 3. Capacitance

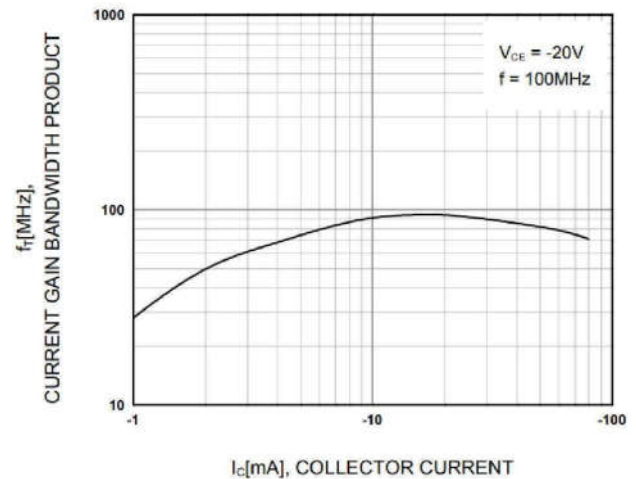


Figure 4. Current Gain Bandwidth Product

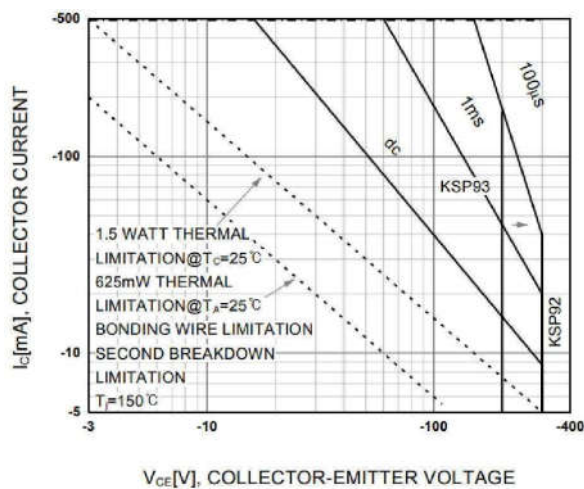


Figure 5. Active-Region Safe Operating Area

Ordering information

Package	Packing Description	Base Quantity
TO-92	Bulk	1000pcs/Bag
	Tape	2000pcs/Box

Package Dimensions

TO-92

Technical drawing of the MPSA92 TO-92 package showing three views: top, side, and cross-sectional views. The dimensions are labeled as follows:

- Top View:** Dimensions include D (package width), E (package height), L (lead length), $L1$ (lead thickness), b (lead width), $b1$ (lead thickness), e (lead spacing), and $e1$ (lead pitch).
- Side View:** Dimensions include A (package width), c (lead thickness), and L (lead length).
- Cross-sectional View:** Dimensions include $A1$ (package width) and A (package height).

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087

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