



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

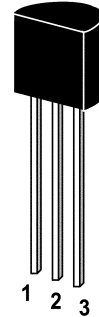
MPSA 92 / 93

PNP Silicon Epitaxial Planar Transistor

for high voltage switching and amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the NPN transistor MPSA 42 and MPSA 43 are recommended.

On special request, these transistors can be manufactured in different pin configurations.



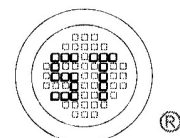
1. Emitter 2. Base 3. Collector

TO-92 Plastic Package

Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	Symbol	Value		Unit
		MPSA 92	MPSA 93	
Collector Base Voltage	$-V_{CBO}$	300	200	V
Collector Emitter Voltage	$-V_{CEO}$	300	200	V
Emitter Base Voltage	$-V_{EBO}$	5		V
Collector Current	$-I_C$	500		mA
Total Device Dissipation @ $T_a=25^\circ\text{C}$	P_{tot}	625		mW
Derate above 25°C		5		mW/ $^\circ\text{C}$
Total Device Dissipation @ $T_c=25^\circ\text{C}$	P_{tot}	1.5		W
Derate above 25°C		12		mW/ $^\circ\text{C}$
Junction Temperature	T_j	150		$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150		$^\circ\text{C}$



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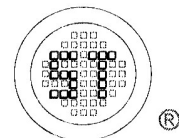
Dated : 16/06/2004

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MPSA 92 / 93**Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$**

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at $-I_C=1\text{mA}$, $-V_{CE}=10\text{V}$	h_{FE}	25	-	-	-
at $-I_C=10\text{mA}$, $-V_{CE}=10\text{V}$	h_{FE}	40	-	-	-
at $-I_C=30\text{mA}$, $-V_{CE}=10\text{V}$	h_{FE}	25	-	-	-
Emitter Cutoff Current					
at $-V_{EB}=3\text{V}$	$-I_{EBO}$	-	-	0.1	μA
Collector Cutoff Current					
at $-V_{CB}=200\text{V}$ MPSA 92	$-I_{CBO}$	-	-	0.25	μA
$-V_{CB}=160\text{V}$ MPSA 93	$-I_{CBO}$	-	-	0.25	μA
Collector Base Breakdown Voltage					
at $-I_C=100\mu\text{A}$ MPSA 92	$-V_{(BR)CBO}$	300	-	-	V
MPSA 93	$-V_{(BR)CBO}$	200	-	-	V
Collector Emitter Breakdown Voltage					
at $-I_C=1\text{mA}$ MPSA 92	$-V_{(BR)CEO}$	300	-	-	V
MPSA 93	$-V_{(BR)CEO}$	200	-	-	V
Emitter Base Breakdown Voltage					
at $-I_E=100\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V
Collector Saturation Voltage					
at $-I_C=20\text{mA}$, $-I_B=2\text{mA}$	$-V_{CE(sat)}$	-	-	0.5	V
Base Saturation Voltage					
at $-I_C=20\text{mA}$, $-I_B=2\text{mA}$	$-V_{BE(sat)}$	-	-	0.9	V
Gain Bandwidth Product					
at $-I_C=10\text{mA}$, $-V_{CE}=20\text{V}$, $f=100\text{MHz}$	f_T	50	-	-	MHz
Collector Output Capacitance					
at $-V_{CB}=20\text{V}$, $f=1\text{MHz}$ MPSA 92	C_{ob}	-	-	6	pF
MPSA 93	C_{ob}	-	-	8	pF

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MPSA 92 / 93

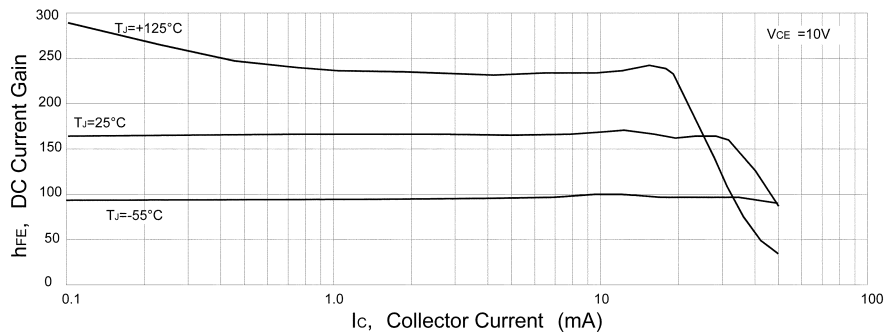


Figure 1. DC Current Gain

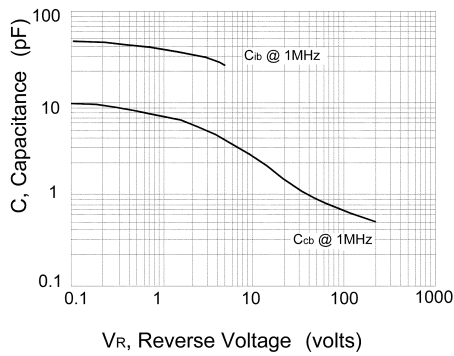


Figure 2. Capacitance

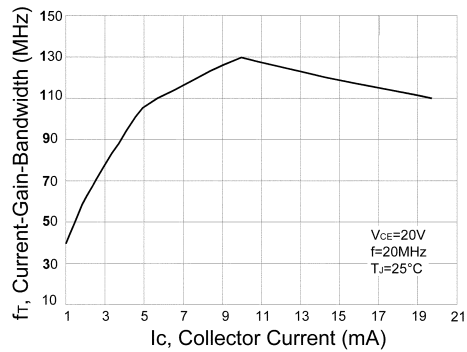
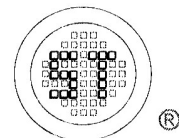


Figure 3. Current-Gain-Bandwidth



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