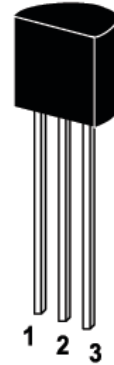


**PNP Silicon Epitaxial Planar Transistor**  
for high voltage switching and amplifier applications.

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 $25^\circ\text{C}$		5		mW/ $^\circ\text{C}$
Total Device Dissipation @ $T_c=25^\circ\text{C}$	$P_{tot}$	1.5		W
Derate above $25^\circ\text{C}$		12		mW/ $^\circ\text{C}$
Junction Temperature	$T_j$	150		$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to +150		$^\circ\text{C}$

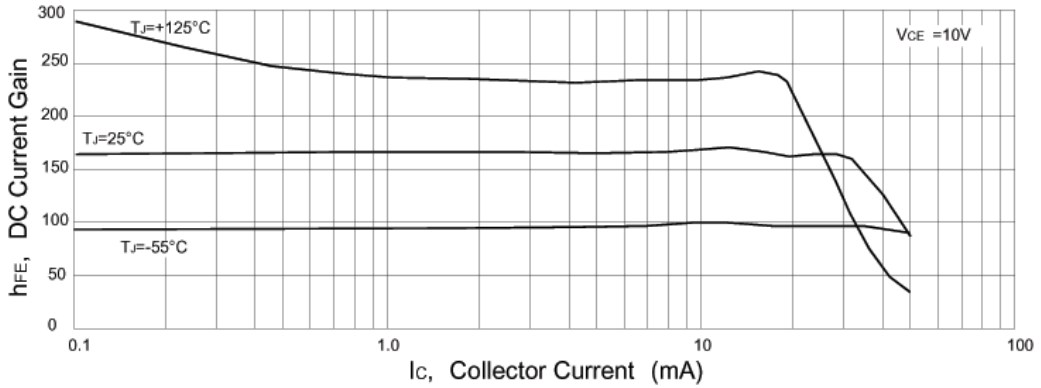


Figure 1. DC Current Gain

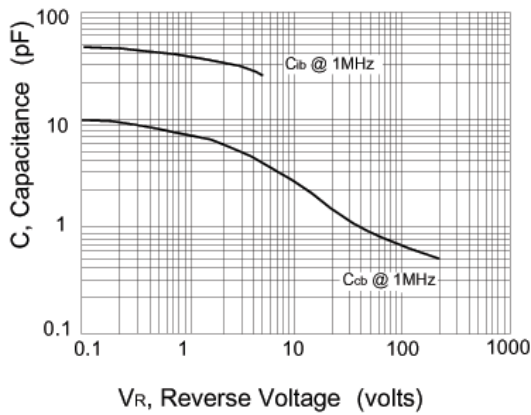


Figure 2. Capacitance

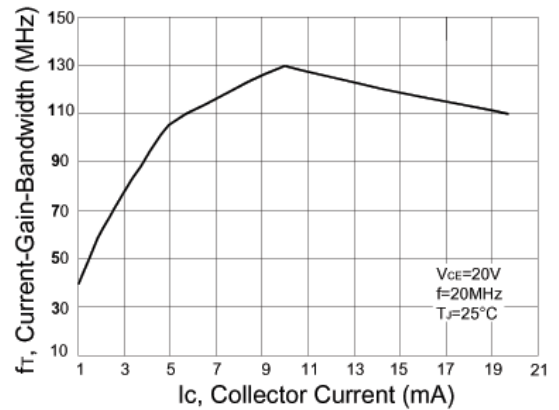


Figure 3. Current-Gain-Bandwidth

**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	$\mu\text{A}$
Collector Cutoff Current						
at $-V_{CB}=200\text{V}$	MPSA 92	$-I_{CBO}$	-	-	0.25	$\mu\text{A}$
$-V_{CB}=160\text{V}$	MPSA 93	$-I_{CBO}$	-	-	0.25	$\mu\text{A}$
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