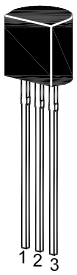
MPSA05 / 06

NPN Silicon Epitaxial Planar Transistor

for amplifier applications

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



1. Emitter 2. Base 3. Collector
TO-92 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Collector Base Voltage	MPSA05 MPSA06	V_{CBO}	60 80	V
Collector Emitter Voltage	MPSA05 MPSA06	V_{CEO}	60 80	V
Emitter Base Voltage		V_{EBO}	4	V
Collector Current		I_C	500	mA
Power Dissipation		P_{tot}	625	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at V_{CE} = 1 V, I_C = 10 mA at V_{CE} = 1 V, I_C = 100 mA		 h_{FE} h_{FE}	 100 100	 - -	 - -
Collector Base Cutoff Current at V_{CB} = 60 V at V_{CB} = 80 V	 MPSA05 MPSA06	 I_{CBO}	 - -	 100 100	 nA
Collector Emitter Cutoff Current at V_{CE} = 60 V		I_{CES}	-	100	nA
Collector Emitter Breakdown Voltage at I_C = 1 mA	 MPSA05 MPSA06	$V_{(BR)CEO}$	60 80	- -	V
Emitter Base Breakdown Voltage at I_E = 100 µA		$V_{(BR)EBO}$	4	-	V
Collector Emitter Saturation Voltage at I_C = 100 mA, I_B = 10 mA		$V_{CE(sat)}$	-	0.25	V
Base Emitter On Voltage at I_C = 100 mA, V_{CE} = 1 V		$V_{BE(on)}$	-	1.2	V
Transition Frequency at I_C = 10 mA, V_{CE} = 2 V, f = 100 MHz		f_T	100	-	MHz

Dated: 03/12/2004

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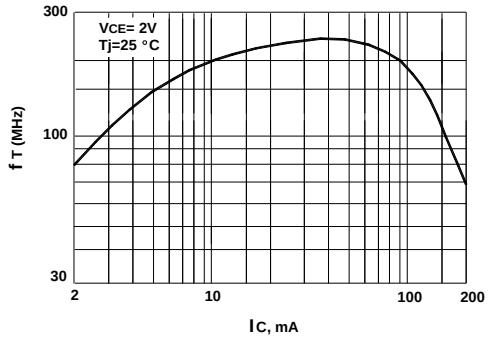
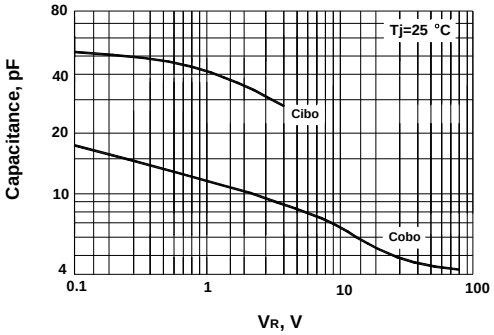
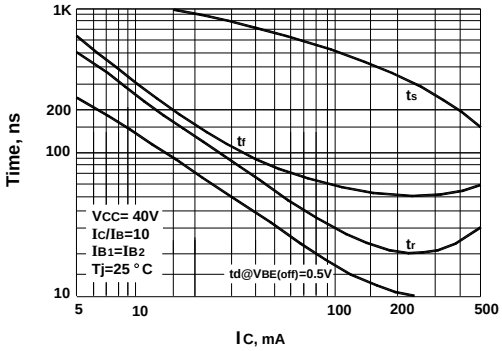
Current gain - bandwidth product



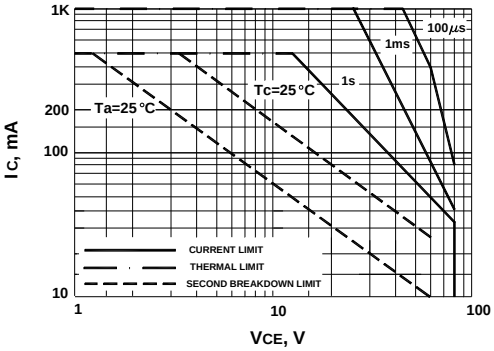
Capacitance



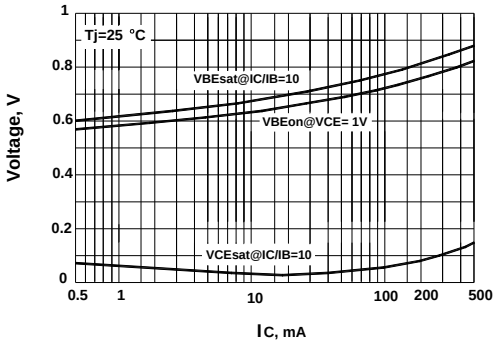
Switching Time



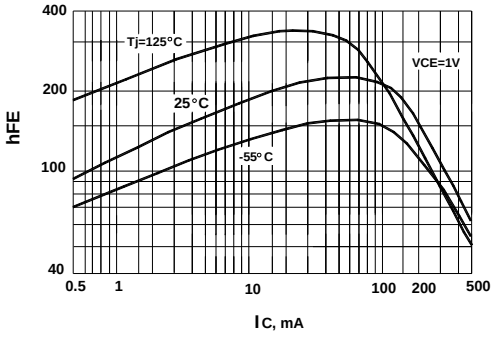
Active- region safe operating area



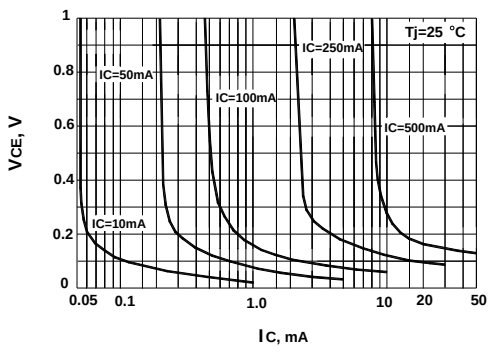
"ON" voltages



DC current gain



Collector saturation region



Base emitter temperature coefficient