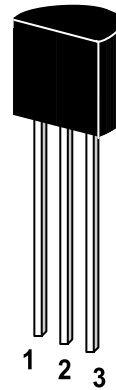


MPS8599

PNP Silicon Amplifier Transistor

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



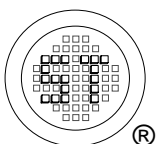
1. Emitter 2. Base 3. Collector

TO-92 Plastic Package

Weight approx. 0.19g

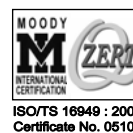
Absolute Maximum Ratings (Ta=25°C)

	Symbol	Value	Unit
Collector Emitter Voltage	$-V_{CEO}$	80	V
Collector Base Voltage	$-V_{CBO}$	80	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/°C
Total Device Dissipation @ $T_C=25^\circ\text{C}$	P_{tot}	1.5	W
Derate above 25°C		12	mW/°C
Operating and Storage Junction Temperature Range	T_J, T_S	-55 to +150	°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	°C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	°C/W



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

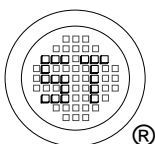
Dated : 24/06/2003

MPS8599

Characteristics (T_A=25 °C)

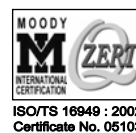
	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at -V _{CE} =5V, -I _C =1mA	h _{FE}	100	-	300	-
at -V _{CE} =5V, -I _C =10mA	h _{FE}	100	-	-	-
at -V _{CE} =5V, -I _C =100mA	h _{FE}	75	-	-	-
Collector Saturation Voltage					
at -I _C =100mA, -I _B =5mA	-V _{CEsat}	-	-	0.4	V
at -I _C =100mA, -I _B =10mA	-V _{CEsat}	-	-	0.3	V
Base Emitter On Voltage					
at -V _{CE} =5V, -I _C =10mA	-V _{BE(on)}	0.6	-	0.8	V
Collector-Emitter Breakdown Voltage					
at -I _C =10mA	-V _{(BR)CEO}	80	-	-	V
Collector-Base Breakdown Voltage					
at -I _C =100μA	-V _{(BR)CBO}	80	-	-	V
Emitter-Base Breakdown Voltage					
at -I _E =10μA	-V _{(BR)EBO}	5	-	-	V
Collector Cutoff Current					
at -V _{CE} =60V	-I _{CEs}	-	-	0.1	μA
Collector Cutoff Current					
at -V _{CB} =80V	-I _{CBO}	-	-	0.1	μA
Emitter Cutoff Current					
at -V _{EB} =4V	-I _{EBO}	-	-	0.1	μA
Current-Gain-Bandwidth Product					
at -V _{CE} =5V, -I _C =10mA, f=100MHz	f _T	150	-	-	MHz
Output Capacitance					
at -V _{CB} =5V, f=1MHz	C _{obo}	-	-	8	pF
Input Capacitance					
at -V _{EB} =0.5V, f=1MHz	C _{ibo}	-	-	30	pF

Notes: Pulse test: Pulse width ≤ 300μs, Duty cycle=2%.



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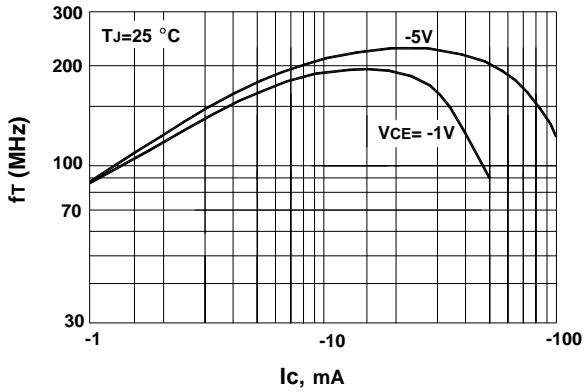
ISO/TS 16949 : 2002
Certificate No. 05103

ISO 14001:2004
Certificate No. 7116

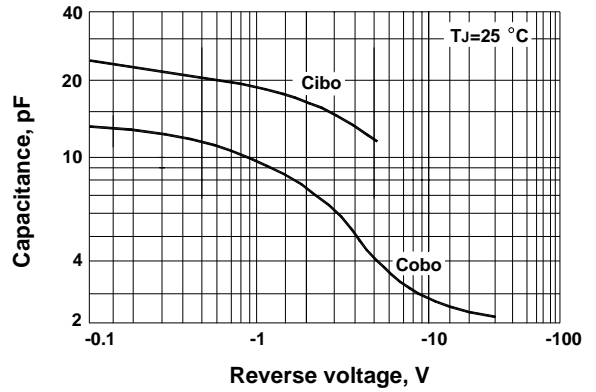
ISO 9001:2000
Certificate No. 050698

Dated : 24/06/2003

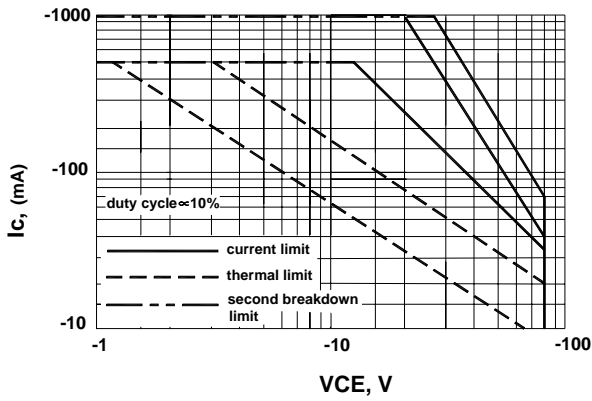
Current gain - bandwidth product



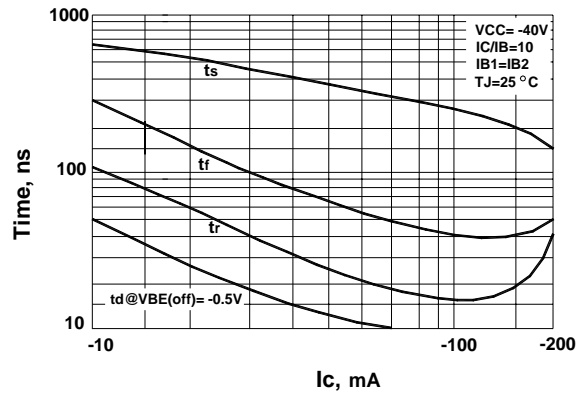
Capacitance



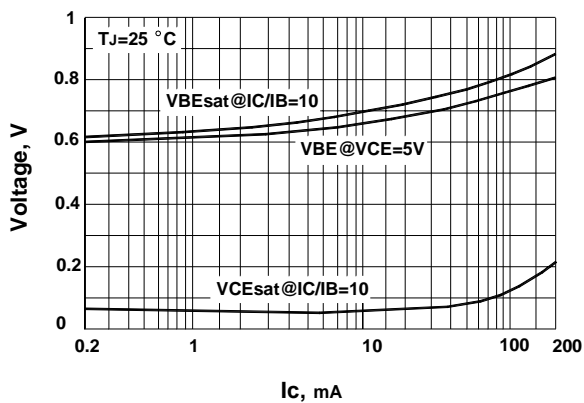
Active - region safe operating area



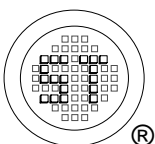
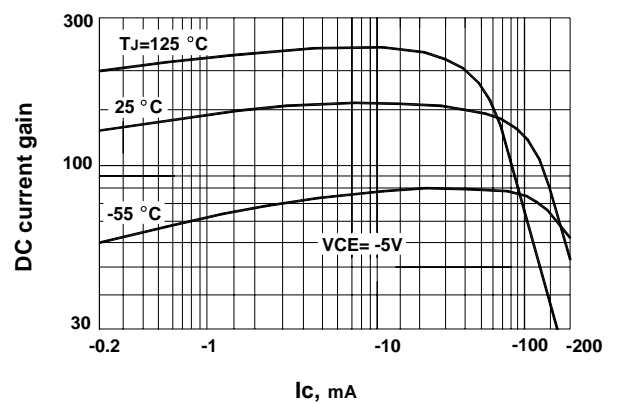
Switching times



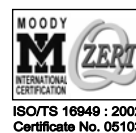
"ON" Voltages



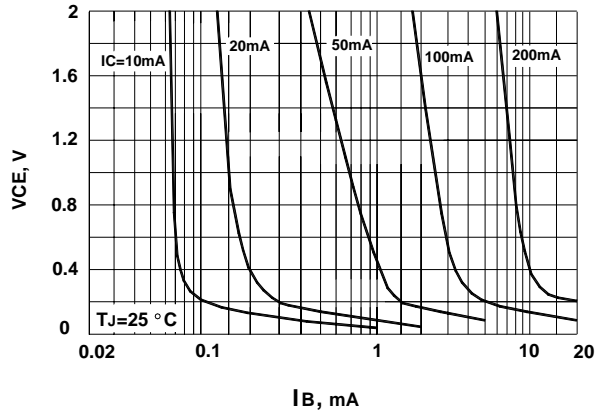
DC current gain



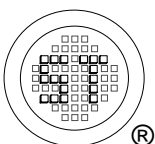
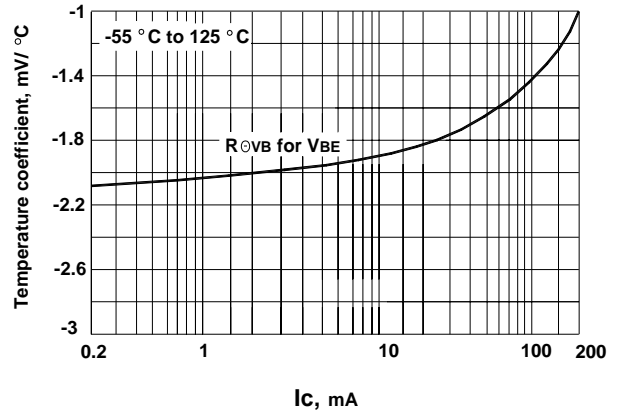
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Collector saturation region



Base emitter temperature coefficient



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