



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.

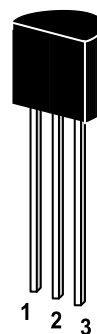
TEL: 852-2790 0314 FAX: 852-2790 0206

MPSA55

PNP Transistor

for amplifier applications

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



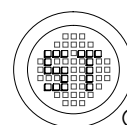
1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings* (T_a = 25 °C)

	Symbol	Value	Unit
Collector Base Voltage	-V _{CBO}	60	V
Collector Emitter Voltage	-V _{CEO}	60	V
Emitter Base Voltage	-V _{EBO}	4.0	V
Collector Current	-I _C	500	mA
Total Device Dissipation at T _a =25°C Derate above 25°C	P _{tot}	625 5	mW mW/°C
Total Device Dissipation at T _c =25°C Derate above 25°C	P _{tot}	1.5 12	W mW/°C
Thermal Resistance, Junction to Case	R _{θJC}	83.3	°C/W
Thermal Resistance, Junction to Ambient(Note1)	R _{θJA}	200	°C/W
Junction Temperature	T _j	-55 to +150	°C
Storage Temperature Range	T _s	-55 to +150	°C

1.R_{θJA} is measured with the device soldered into a typical printed circuit board.



Dated : 26/02/2005



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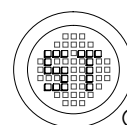
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Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at $-I_C=10\text{mA}$, $-V_{CE}=1\text{V}$	h_{FE}	100	-	-	-
at $-I_C=100\text{mA}$, $-V_{CE}=1\text{V}$	h_{FE}	100	-	-	-
Collector Cutoff Current					
at $-V_{CB}=60\text{V}$	$-I_{CBO}$	-	-	0.1	μA
Collector Cutoff Current					
at $-V_{CE}=60\text{V}$	$-I_{CES}$	-	-	0.1	μA
Collector Emitter Breakdown Voltage ¹⁾					
at $-I_C=1\text{mA}$	$-V_{(BR)CEO}$	60	-	-	V
Emitter Base Breakdown Voltage					
at $-I_E=100\mu\text{A}$	$-V_{(BR)EBO}$	4	-	-	V
Collector Saturation Voltage					
at $-I_C=100\text{mA}$, $-I_B=10\text{mA}$	$-V_{CE(sat)}$	-	-	0.25	V
Base On Voltage					
at $-I_C=100\text{mA}$, $-V_{CE}=1\text{V}$	$-V_{BE(on)}$	-	-	1.2	V
Current Gain – Bandwidth Product ²⁾					
at $-I_C=100\text{mA}$, $-V_{CE}=1\text{V}$, $f=100\text{MHz}$	f_T	50	-	-	MHz

1) Pulse test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

2) f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity.



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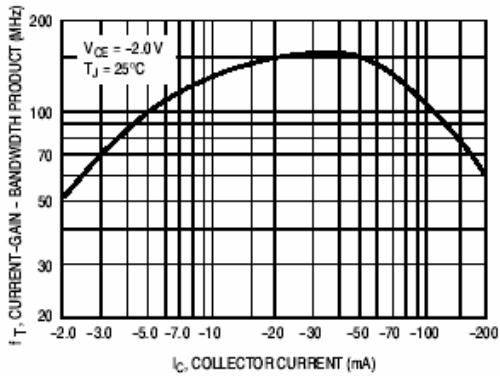


Figure 1. Current-Gain — Bandwidth Product

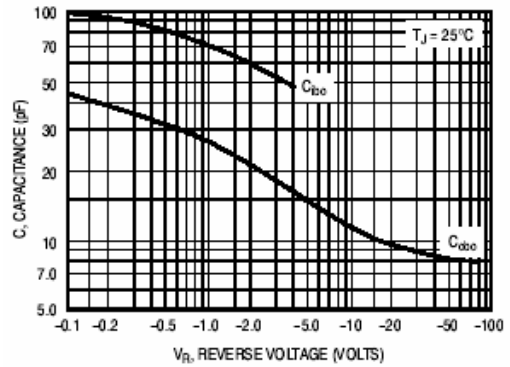


Figure 2. Capacitance

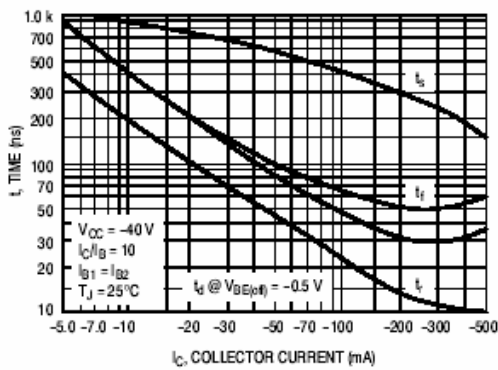


Figure 3. Switching Time

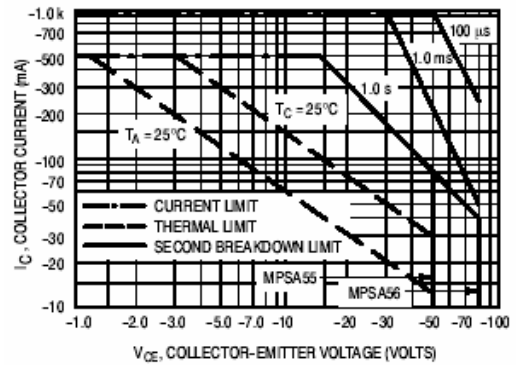


Figure 4. Active-Region Safe Operating Area

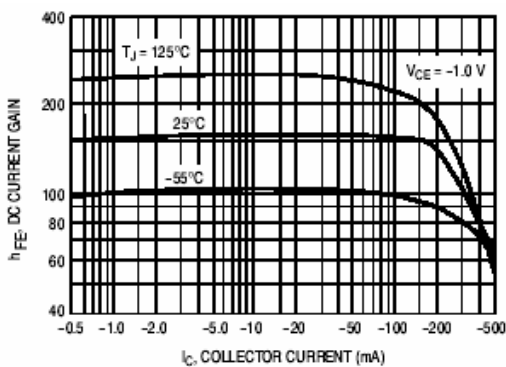


Figure 5. Current Gain

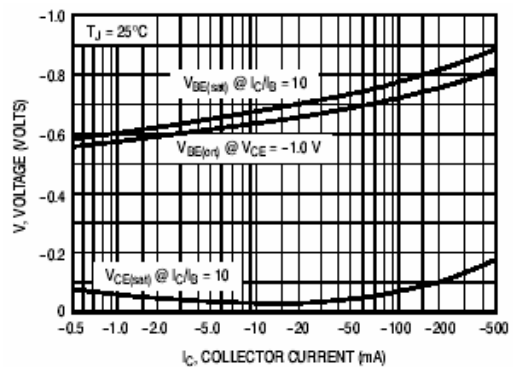
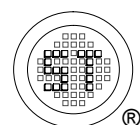


Figure 6. "ON" Voltages





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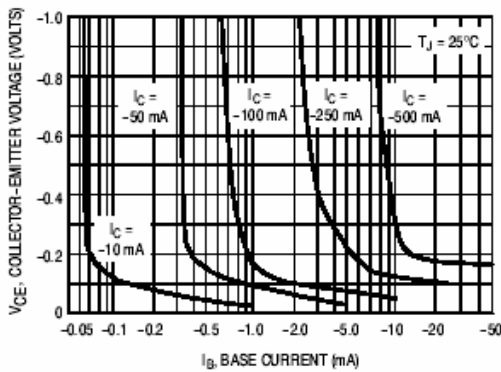


Figure 7 . Collector Saturation Region

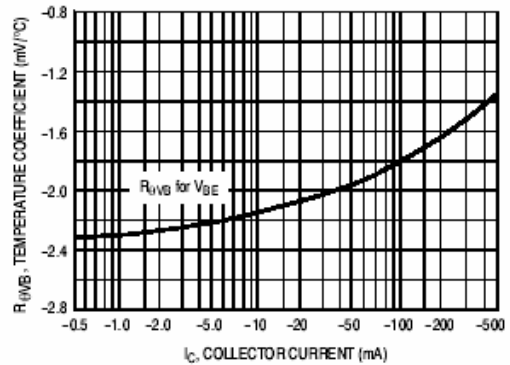


Figure 8 . Base-Emitter Temperature Coefficient

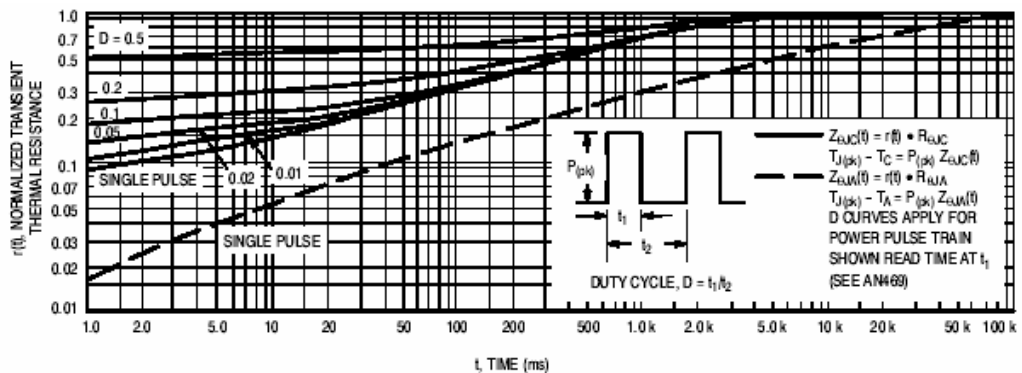


Figure 9 . Thermal Response

