

SILICON PLANAR EPITAXIAL TRANSISTORS

PNP silicon planar epitaxial small-signal transistors, each in a plastic TO-92 package.

They are intended for amplifier applications.

NPN complementary types are MPS6531 and MPS6532.

QUICK REFERENCE DATA

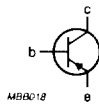
			MPS6534	MPS6535	
Collector-emitter voltage (open base)	$-V_{CEO}$	max.	40	30	V
Collector-base voltage (open emitter)	$-V_{CBO}$	max.	40	30	V
DC collector current	$-I_C$	max.	600		mA
Total power dissipation at $T_{amb} = 25\text{ }^\circ\text{C}$	P_{tot}	max.	625		mW
Collector-emitter saturation voltage $-I_C = 100\text{ mA}; -I_B = 10\text{ mA}$	$-V_{CEsat}$	max.	0.3	0.5	V
DC current gain $-I_C = 100\text{ mA}; -V_{CE} = 1\text{ V}$	h_{FE}	min. max.	90 270	30 —	

MECHANICAL DATA

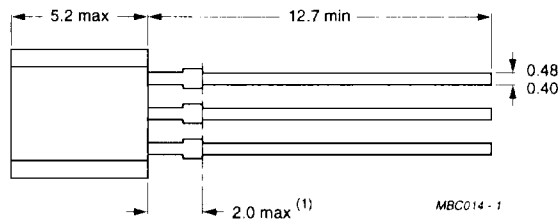
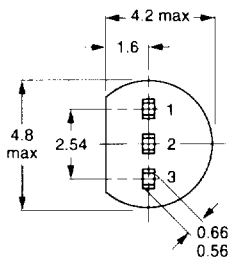
Dimensions in mm

Pinning

- 1 = collector
- 2 = base
- 3 = emitter



MBC012



MBC014 - 1

Note (1) Terminal dimensions within this zone are uncontrolled to allow for flow of plastic and terminal irregularities.

Fig. 1 TO-92.

RATINGS

Limiting values in accordance with the Absolute Maximum System (IEC 134)

			MPS6534	MPS6535	
Collector-emitter voltage (open base)	$-V_{CEO}$	max.	40	30	V
Collector-base voltage (open emitter)	$-V_{CBO}$	max.	40	30	V
Emitter-base voltage (open collector)	$-V_{EBO}$	max.		5.0	V
DC collector current	$-I_C$	max.		600	mA
Total power dissipation at $T_{amb} = 25\text{ }^\circ\text{C}$	P_{tot}	max.		625	mW
Storage temperature range	T_{stg}			-65 to + 150	$^\circ\text{C}$
Junction temperature	T_j	=		150	$^\circ\text{C}$

CHARACTERISTICS

$T_j = 25\text{ }^\circ\text{C}$ unless otherwise specified

			MPS6534	MPS6535	
Collector-emitter breakdown voltage $-I_B = 0; -I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	min.	40	30	V
Collector-base breakdown voltage $-I_E = 0; -I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	min.	40	30	V
Collector cut-off currents $-I_E = 0; -V_{CB} = 30\text{ V}$	$-I_{CBO}$	max.	50	50	nA
$-I_E = 0; -V_{CB} = 30\text{ V}; T_{amb} = 60\text{ }^\circ\text{C}$	$-I_{CBO}$	max.	2	—	μA
$-I_E = 0; -V_{CB} = 20\text{ V}; T_{amb} = 60\text{ }^\circ\text{C}$	$-I_{CBO}$	max.	—	5	μA
DC current gain $-I_C = 10\text{ mA}; -V_{CE} = 1\text{ V}$	h_{FE}	min.	60	—	
$-I_C = 100\text{ mA}; -V_{CE} = 1\text{ V}$	h_{FE}	min.	90	30	
$-I_C = 500\text{ mA}; -V_{CE} = 10\text{ V}$	h_{FE}	max.	270	—	
	h_{FE}	min.	50	—	
Collector-emitter saturation voltage $-I_C = 100\text{ mA}; -I_B = 10\text{ mA}$	$-V_{CEsat}$	max.	0.3	0.5	V
Base-emitter saturation voltage $-I_C = 100\text{ mA}; -I_B = 10\text{ mA}$	$-V_{BEsat}$	max.	1.0	1.2	V
Collector capacitance $-I_E = -I_e = 0; -V_{CB} = 10\text{ V}; f = 1\text{ MHz}$	C_c	max.	10	10	pF