

SILICON PLANAR EPITAXIAL TRANSISTORS

General purpose n-p-n transistors in TO-92 packages. The complementary types are MPS6517 to MPS6519.

QUICK REFERENCE DATA

		MPS6513	6514	6515
Collector-emitter voltage	V_{CEO} max.	30	25	25 V
Collector current (d.c.)	I_C max.	100	100	100 mA
D.C. current gain $I_C = 100$ mA; $V_{CE} = 10$ V	h_{FE} >	60	90	150
Total power dissipation up to $T_{amb} = 25$ °C	P_{tot} max.	625		mW

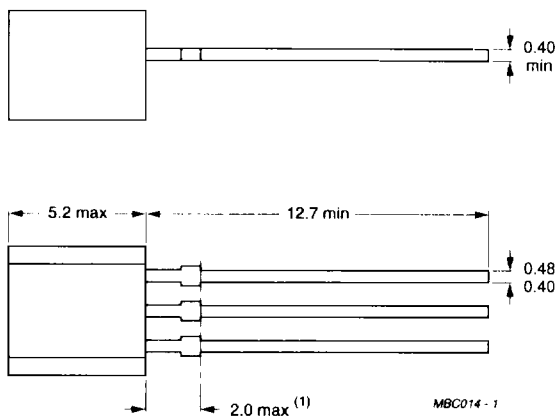
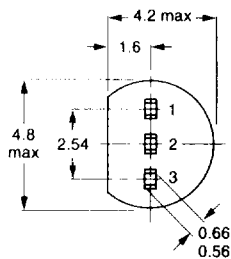
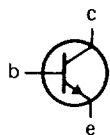
MECHANICAL DATA

Dimensions in mm

Fig. 1 TO-92.

Pinning;

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



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

RATINGS

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

			MPS6513	6514	6515
Collector-emitter voltage	V_{CEO}	max.	30	25	25 V
Collector-base voltage	V_{CBO}	max.	40		V
Emitter-base voltage	V_{EBO}	max.	4,0		V
Collector current (d.c.)	I_C	max.	100		mA
Total power dissipation up to $T_{amb} = 25\text{ }^\circ\text{C}$	P_{tot}	max.	625		mW
Storage temperature range	T_{stg}		-65 to +150		$^\circ\text{C}$
Junction temperature	T_j	max.	150		$^\circ\text{C}$

THERMAL RESISTANCE

From junction to ambient in free air	$R_{th\ j-a}$	=	200		K/W
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CHARACTERISTICS

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

			MPS6513	6514	6515
Collector-emitter breakdown voltage $I_C = 0,5\text{ mA}; I_B = 0$	$V_{(BR)CEO}$	>	30	25	25 V
Emitter-base breakdown voltage $I_E = 10\text{ }\mu\text{A}; I_C = 0$	$V_{(BR)EBO}$	>	4,0	4,0	4,0 V
Collector cut-off current $V_{CB} = 30\text{ V}; I_E = 0$	I_{CBO}	<	50	50	50 nA
D.C. current gain $I_C = 2\text{ mA}; V_{CE} = 10\text{ V}$	h_{FE}	=	90 to 180	150 to 300	250 to 500
$I_C = 100\text{ mA}; V_{CE} = 10\text{ V}$	h_{FE}	>	60	90	150
Collector-emitter saturation voltage $I_C = 50\text{ mA}; I_B = 5\text{ mA}$	V_{CEsat}	<	0,5		V
Output capacitance $V_{CB} = 10\text{ V}; I_E = 0; f = 100\text{ kHz}$	C_c	<	3,5		pF