



T-27-21

AMPLIFIER TRANSISTOR

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

QUICK REFERENCE DATA

		MPS6513	6514	6515
Collector-emitter voltage	V_{CE0} 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

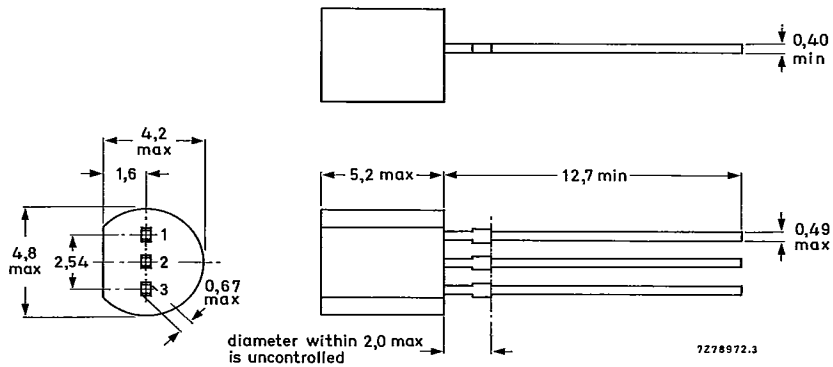
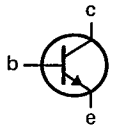
MECHANICAL DATA

Dimensions in mm

Fig. 1 TO-92.

Pinning;

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



Capability approved to GECC NECC-C-002

RATINGS

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

T-27-21

			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}	=	90 180	150 300	250 500	
$I_C = 100\text{ mA}; V_{CE} = 10\text{ V}$	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_{obo}	<		3,5		pF