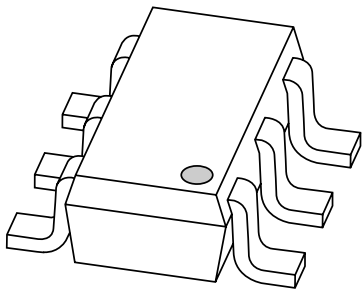


# DATA SHEET



## **PIMT1** PNP general purpose double transistor

Product specification

2001 Oct 22

PNP general purpose double transistor

PIMT1

FEATURES

- 600 mW total power dissipation
- Low current (max. 100 mA)
- Low voltage (max. 40 V)
- Reduces number of components and required PCB area
- Reduced pick and place costs.

APPLICATIONS

- General purpose switching and amplification.

DESCRIPTION

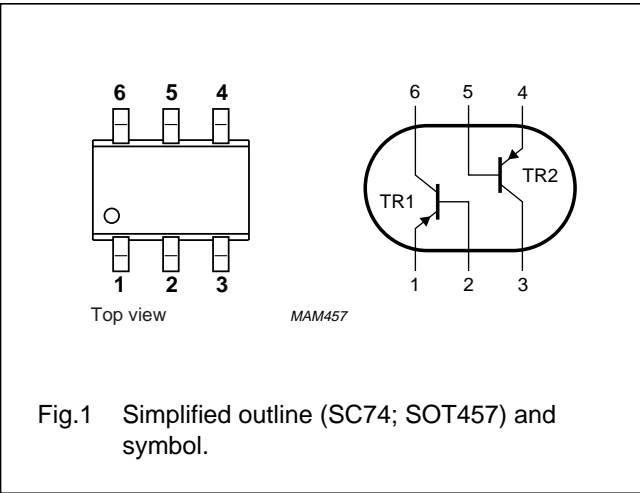
PNP transistor pair in an SC-74 (SOT457) plastic package.

MARKING

TYPE NUMBER	MARKING CODE
PIMT1	M1

PINNING

PIN	DESCRIPTION	
1, 4	emitter	TR1; TR2
2, 5	base	TR1; TR2
6, 3	collector	TR1; TR2



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per transistor					
V <sub>CBO</sub>	collector-base voltage	open emitter	–	–50	V
V <sub>CEO</sub>	collector-emitter voltage	open base	–	–40	V
V <sub>EBO</sub>	emitter-base voltage	open collector	–	–5	V
I <sub>C</sub>	collector current (DC)		–	–100	mA
I <sub>CM</sub>	peak collector current		–	–200	mA
I <sub>BM</sub>	peak base current		–	–200	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	–	300	mW
T <sub>stg</sub>	storage temperature		–65	+150	°C
T <sub>j</sub>	junction temperature		–	150	°C
T <sub>amb</sub>	operating ambient temperature		–65	+150	°C
Per device					
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C; note 1	–	600	mW

Note

1. Device mounted on a printed-circuit board, single sided copper, tinplated and mounting pad for collector 1 cm<sup>2</sup>.

## PNP general purpose double transistor

## PIMT1

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	208	K/W

## Note

1. Device mounted on a printed-circuit board, single sided copper, tinplated and mounting pad for collector 1 cm<sup>2</sup>.

## CHARACTERISTICS

$T_{amb} = 25\text{ °C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
<b>Per transistor</b>					
$I_{CBO}$	collector-base cut-off current	$V_{CB} = -30\text{ V}; I_E = 0$	–	–100	nA
		$V_{CB} = -30\text{ V}; I_E = 0; T_j = 150\text{ °C}$	–	–10	μA
$I_{EBO}$	emitter-base cut-off current	$V_{EB} = -4\text{ V}; I_C = 0$	–	–100	nA
$h_{FE}$	DC current gain	$V_{CE} = -6\text{ V}; I_C = -1\text{ mA}$	120	–	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C = -50\text{ mA}; I_B = -5\text{ mA}; \text{note 1}$	–	–200	mV
$C_c$	collector capacitance	$V_{CB} = -12\text{ V}; I_E = I_e = 0; f = 1\text{ MHz}$	–	2.2	pF
$f_T$	transition frequency	$V_{CE} = -12\text{ V}; I_C = -2\text{ mA}; f = 100\text{ MHz}$	100	–	MHz

## Note

1. Pulse test:  $t_p \leq 300\text{ μs}$ ;  $\delta \leq 0.02$ .

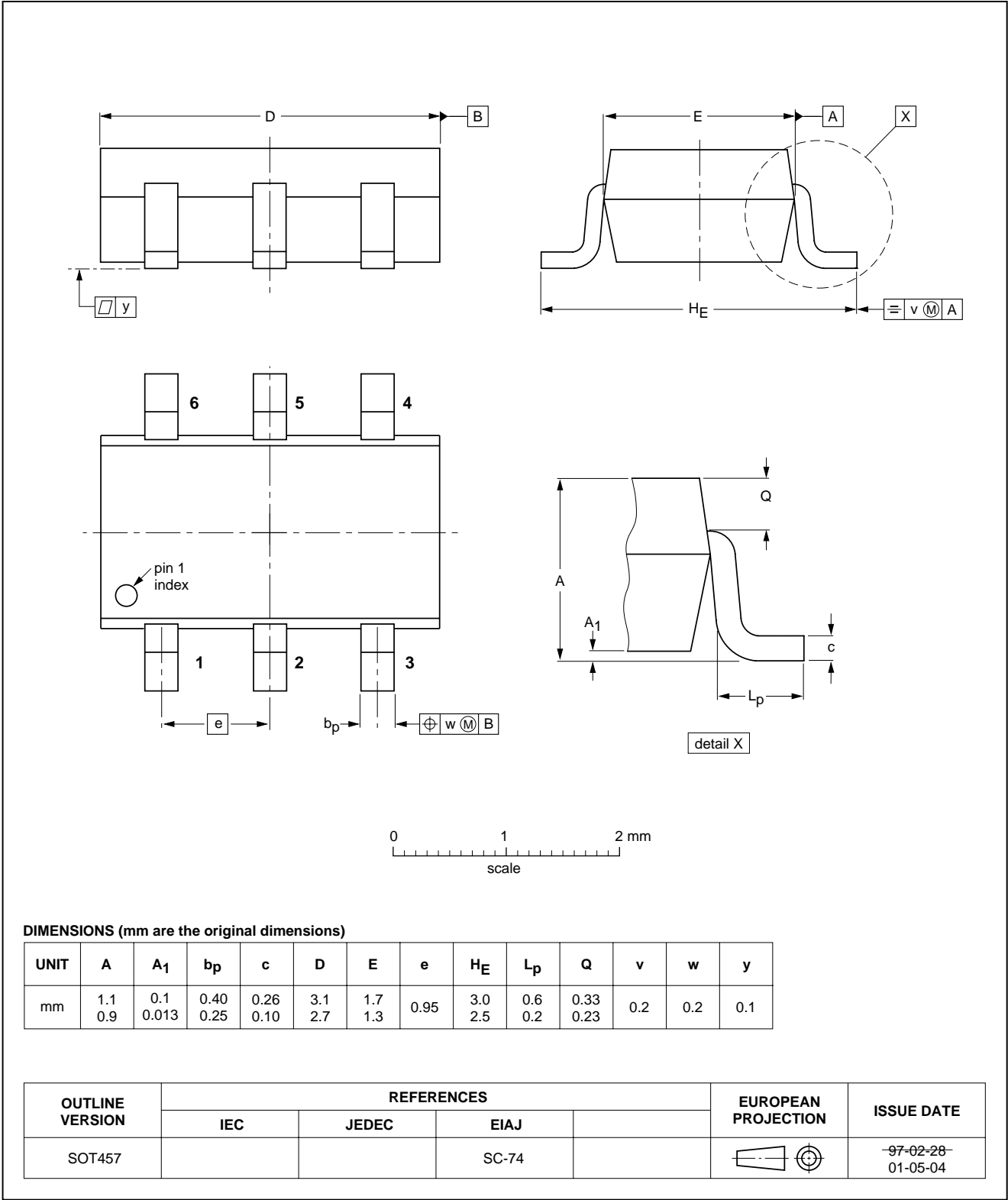
PNP general purpose double transistor

PIMT1

PACKAGE OUTLINE

Plastic surface mounted package; 6 leads

SOT457



## PNP general purpose double transistor

## PIMT1

## DATA SHEET STATUS

DATA SHEET STATUS <sup>(1)</sup>	PRODUCT STATUS <sup>(2)</sup>	DEFINITIONS
Objective data	Development	This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice.
Preliminary data	Qualification	This data sheet contains data from the preliminary specification. Supplementary data will be published at a later date. Philips Semiconductors reserves the right to change the specification without notice, in order to improve the design and supply the best possible product.
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PNP general purpose double transistor

PIMT1

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**NOTES**

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PNP general purpose double transistor

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**NOTES**

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