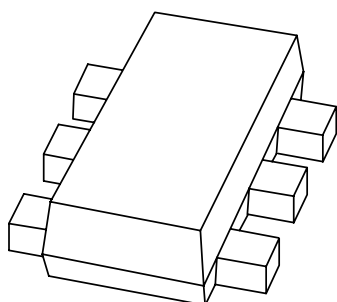


DATA SHEET



PENT1

**PNP general purpose double
transistor**

Product specification
Supersedes data of 2001 Sep 25

2001 Nov 07

PNP general purpose double transistor

PEMT1

FEATURES

- 300 mW total power dissipation
- Very small 1.6×1.2 mm ultra thin package
- Self alignment during soldering due to straight leads
- Replaces two SC-75/SC-89 packaged transistors on same PCB area
- Reduced required PCB area
- Reduced pick and place costs.

APPLICATIONS

- General purpose switching and amplification.

DESCRIPTION

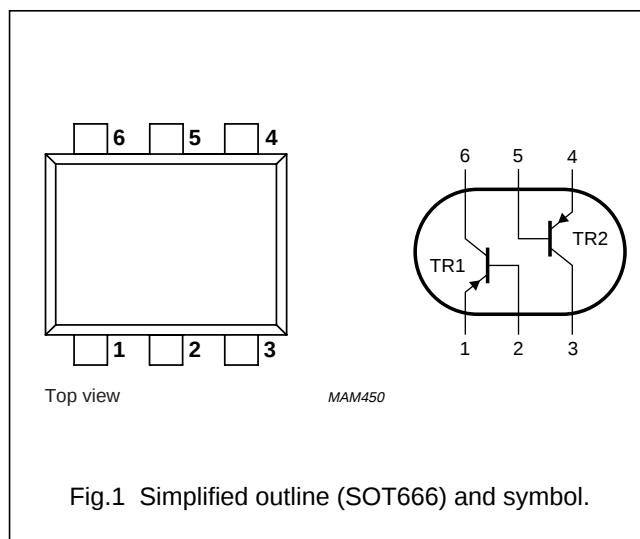
PNP transistor pair in a SOT666 plastic package.
NPN complement: PEMX1.

MARKING

TYPE NUMBER	MARKING CODE
PEMT1	FF

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_{CBO}	collector-base voltage	open emitter	–	–50	V
V_{CEO}	collector-emitter voltage	open base	–	–40	V
V_{EBO}	emitter-base voltage	open collector	–	–5	V
I_C	collector current (DC)		–	–100	mA
I_{CM}	peak collector current		–	–200	mA
I_{BM}	peak base current		–	–200	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$; note 1	–	200	mW
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C
Per device					
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$; note 1	–	300	mW

Note

1. Transistor mounted on an FR4 printed-circuit board.

PNP general purpose double transistor

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	notes 1 and 2	416	K/W

Notes

1. Transistor mounted on an FR4 printed-circuit board.
2. The only recommended soldering is reflow soldering.

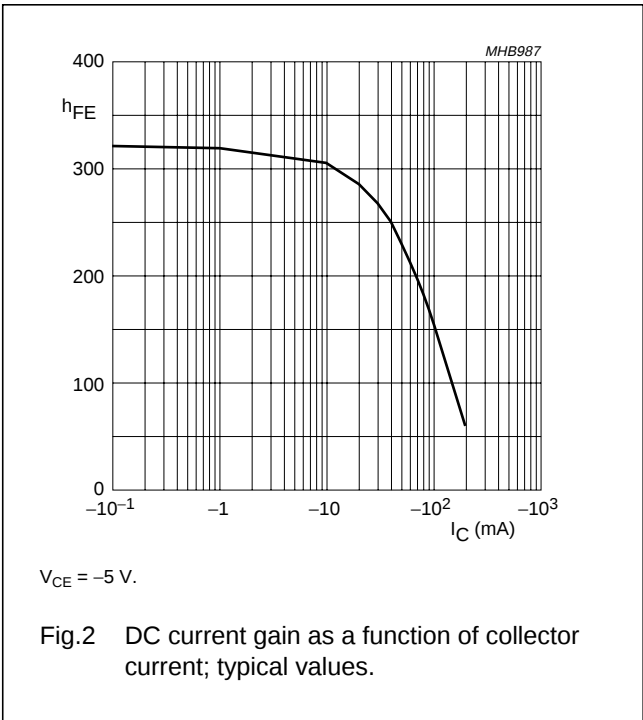
CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$; unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per transistor					
I_{CBO}	collector-base cut-off current	$V_{CB} = -30\text{ V}; I_E = 0$	–	–100	nA
		$V_{CB} = -30\text{ V}; I_E = 0; T_j = 150\text{ }^{\circ}\text{C}$	–	–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: $t_p \leq 300\text{ }\mu\text{s}$; $\delta \leq 0.02$.



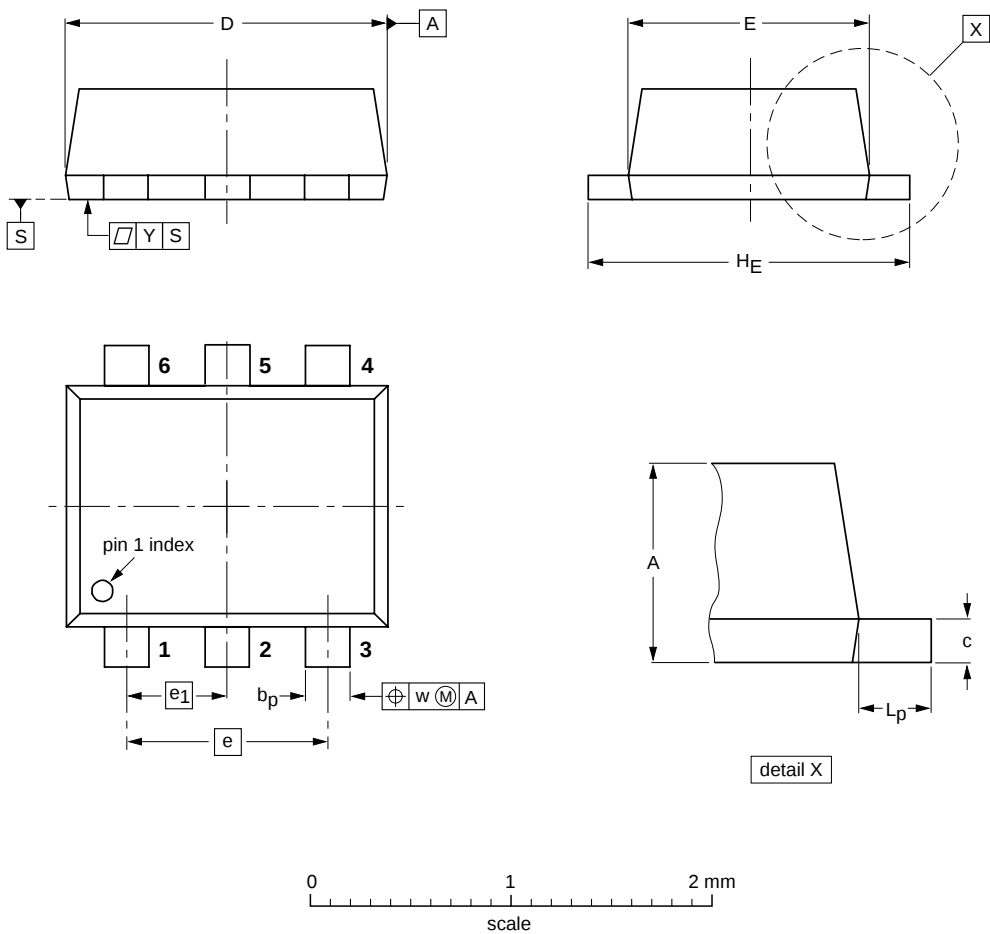
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PACKAGE OUTLINE

Plastic surface mounted package; 6 leads

SOT666



DIMENSIONS (mm are the original dimensions)

UNIT	A	b _p	c	D	E	e	e ₁	H _E	L _p	w	y
mm	0.6 0.5	0.27 0.17	0.18 0.08	1.7 1.5	1.3 1.1	1.0	0.5	1.7 1.5	0.3 0.1	0.1	0.1

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT666						01-01-04 01-08-27

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DATA SHEET STATUS

DATA SHEET STATUS ⁽¹⁾	PRODUCT STATUS ⁽²⁾	DEFINITIONS
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PNP general purpose double transistor

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NOTES

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NOTES

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Printed in The Netherlands

613514/02/pp8

Date of release: 2001 Nov 07

Document order number: 9397 750 09051

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