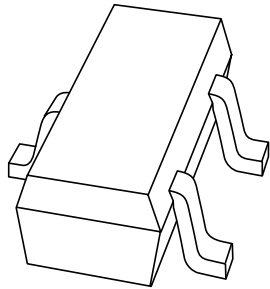


# DATA SHEET



## **2PA1774** PNP general purpose transistor

Preliminary specification  
Supersedes data of 1997 Jul 09

1999 Jun 01

## PNP general purpose transistor

2PA1774

## FEATURES

- Low current (max. 100 mA)
- Low voltage (max. 40 V).

## APPLICATIONS

- General purpose switching and amplification in communication, electronic data processing (EDP) and consumer applications.

## DESCRIPTION

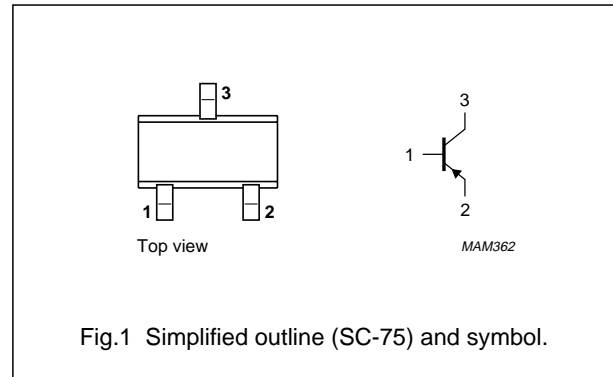
PNP transistor in an SC-75 plastic package.  
NPN complement: 2PC4617.

## MARKING

TYPE NUMBER	MARKING CODE
2PA1774Q	YQ
2PA1774R	YR
2PA1774S	YS

## PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{CBO}$	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		–	–100	mA
$P_{tot}$	total power dissipation	$T_{amb} \leq 25\text{ °C}$ ; note 1	–	150	mW
$T_{stg}$	storage temperature		–65	+150	°C
$T_j$	junction temperature		–	150	°C
$T_{amb}$	operating ambient temperature		–65	+150	°C

## Note

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

## PNP general purpose transistor

2PA1774

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	833	K/W

## Note

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

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$I_E = 0; V_{CB} = -30\text{ V}$	–	–100	nA
		$I_E = 0; V_{CB} = -30\text{ V}; T_j = 150\text{ °C}$	–	–5	$\mu\text{A}$
$I_{EBO}$	emitter cut-off current	$I_C = 0; V_{EB} = -4\text{ V}$	–	–100	nA
$h_{FE}$	DC current gain 2PA1774Q 2PA1774R 2PA1774S	$I_C = -1\text{ mA}; V_{CE} = -6\text{ V};$ note 1	120	270	
			180	390	
			270	560	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C = -50\text{ mA}; I_B = -5\text{ mA};$ note 1	–	–200	mV
$C_c$	collector capacitance	$I_E = i_e = 0; V_{CB} = -12\text{ V}; f = 1\text{ MHz}$	–	2.2	pF
$f_T$	transition frequency	$I_E = -2\text{ mA}; V_{CE} = -12\text{ V}; f = 100\text{ MHz};$ note 1	100	–	MHz

## Note

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

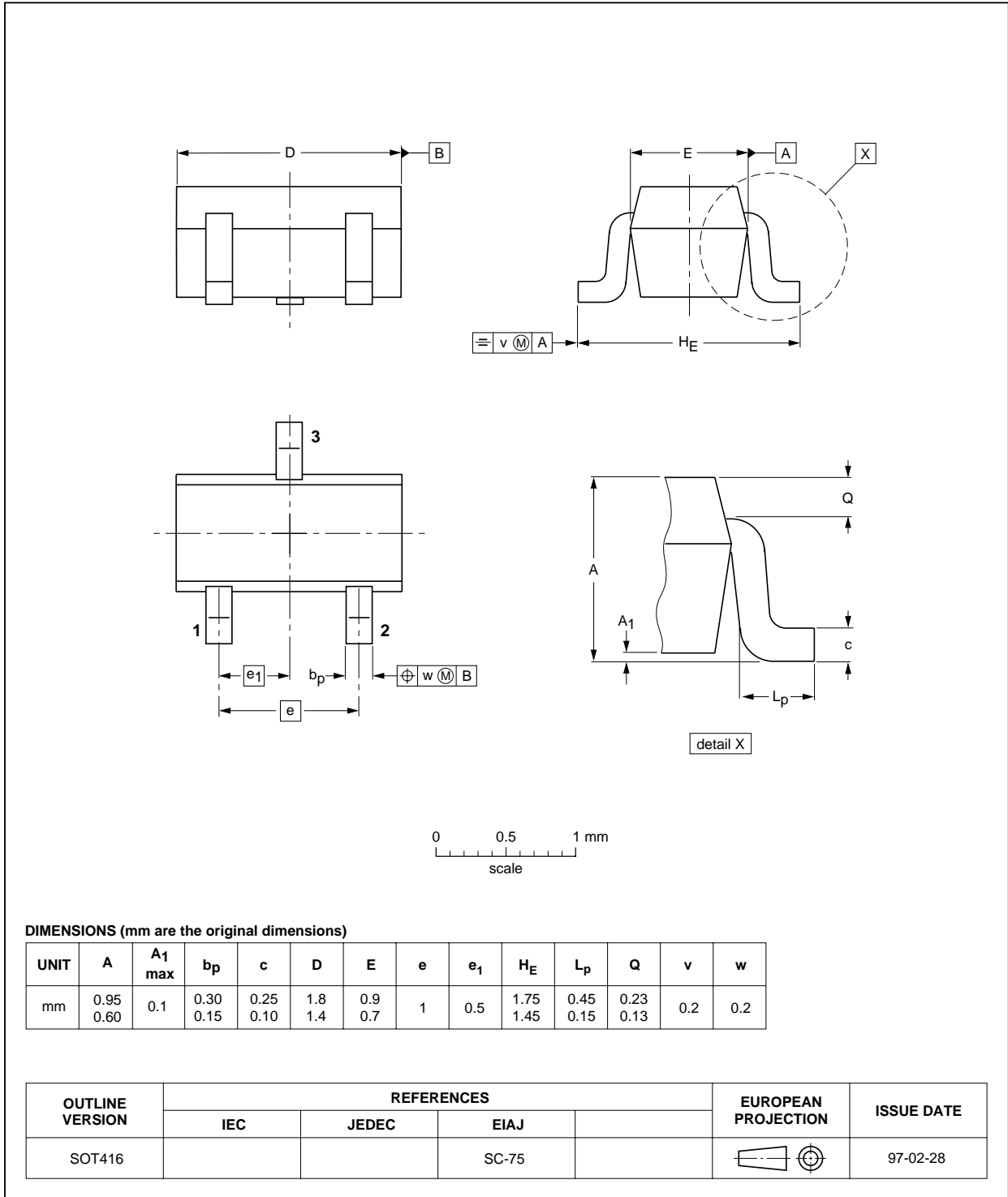
PNP general purpose transistor

2PA1774

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT416



## PNP general purpose transistor

2PA1774

**DEFINITIONS**

<b>Data sheet status</b>	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
<b>Limiting values</b>	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.	
<b>Application information</b>	
Where application information is given, it is advisory and does not form part of the specification.	

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PNP general purpose transistor

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**NOTES**

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PNP general purpose transistor

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**NOTES**

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