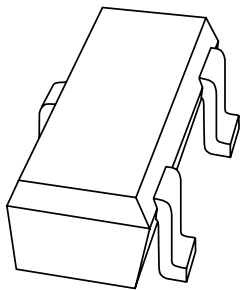


DATA SHEET



2PD601A

NPN general purpose transistor

Product specification
Supersedes data of 1999 Apr 23

2001 Nov 19

NPN general purpose transistor

2PD601A

FEATURES

- High collector current (max. 100 mA)
- Low collector-emitter saturation voltage (max. 500 mV).

APPLICATIONS

- General purpose switching and amplification.

DESCRIPTION

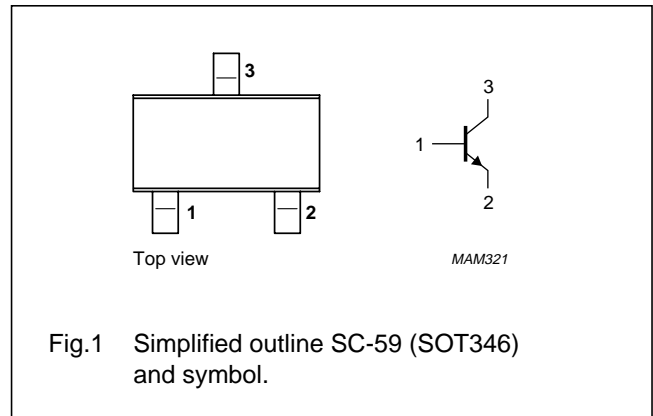
NPN transistor in an SC-59 (SOT346) plastic package.
PNP complement: 2PB709A.

MARKING

TYPE NUMBER	MARKING CODE
2PD601AQ	ZQ
2PD601AR	ZR
2PD601AS	ZS

PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CB0}	collector-base voltage	open emitter	–	60	V
V_{CEO}	collector-emitter voltage	open base	–	50	V
V_{EBO}	emitter-base voltage	open collector	–	6	V
I_C	collector current (DC)		–	100	mA
I_{CM}	peak collector current		–	200	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$; note 1	–	250	mW
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	150	°C
T_{amb}	operating ambient temperature		–65	+150	°C

Note

1. Refer to SC-59 (SOT346) standard mounting conditions.

NPN general purpose transistor

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	500	K/W

Note

1. Refer to SC-59 (SOT346) standard mounting conditions.

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I_{CBO}	collector cut-off current	$I_E = 0; V_{CB} = 60\text{ V}$	–	10	nA
		$I_E = 0; V_{CB} = 60\text{ V}; T_j = 150\text{ °C}$	–	5	μA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = 5\text{ V}$	–	10	nA
h_{FE}	DC current gain	$I_C = 100\text{ mA}; V_{CE} = 2\text{ V}; \text{note 1}$	90	–	
	DC current gain	$I_C = 2\text{ mA}; V_{CE} = 10\text{ V}$			
	2PD601AQ		160	260	
	2PD601AR		210	340	
	2PD601AS		290	460	
V_{CEsat}	collector-emitter saturation voltage	$I_C = 100\text{ mA}; I_B = 10\text{ mA}; \text{note 1}$	–	500	mV
C_c	collector capacitance	$I_E = i_e = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$	–	3.5	pF
f_T	transition frequency	$I_C = 2\text{ mA}; V_{CE} = 10\text{ V};$ $f = 100\text{ MHz}$			
	2PD601AQ		100	–	MHz
	2PD601AR		120	–	MHz
	2PD601AS		140	–	MHz

Note

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

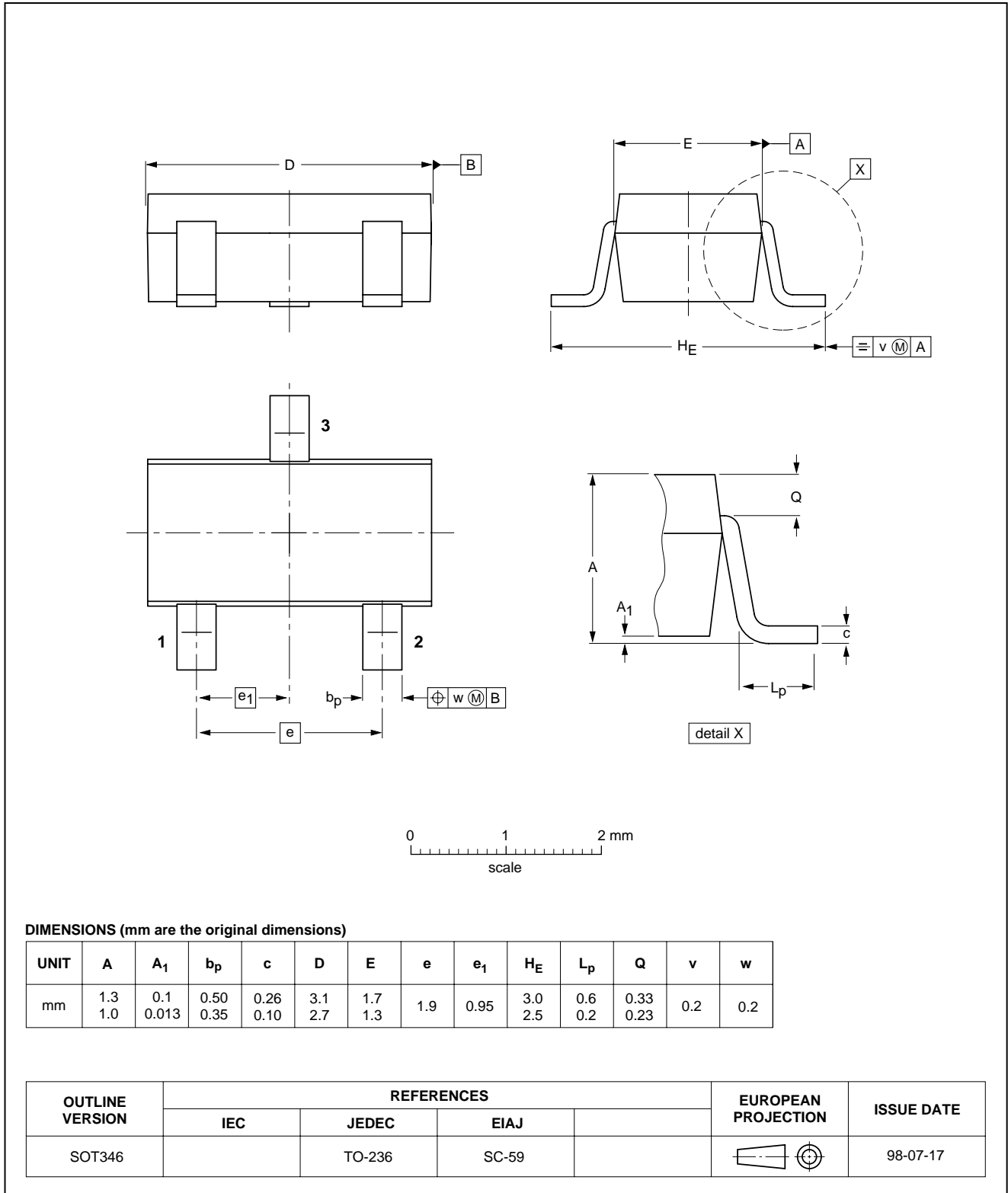
NPN general purpose transistor

2PD601A

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT346



NPN general purpose transistor

2PD601A

DATA SHEET STATUS

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

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NOTES

NPN general purpose transistor

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NOTES

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