2PA1774RM

PNP general purpose transistor

23 January 2026 **Product data sheet**

1. General description

PNP general purpose transistor in a leadless ultra small DFN1006-3 (SOT883) Surface-Mounted Device (SMD) plastic package.

NPN complement: 2PC4617RM

2. Features and benefits

- Leadless ultra small plastic package (1 mm x 0.6 mm x 0.5 mm)
- Board space 1.3 mm x 0.9 mm
- Power dissipation comparable to SOT23
- AEC-Q101 qualified

3. Applications

- General purpose small signal DC
- Low and medium frequency AC applications
- Mobile communications, digital (still) cameras, PDAs, PCMCIA cards

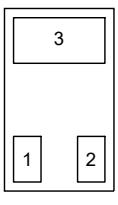
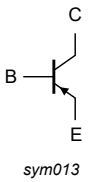
4. Quick reference data

Table 1. Quick reference data

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
V_{CEO}	collector-emitter voltage	open base		-	-	-40	V
I_C	collector current			-	-	-100	mA
I_{CM}	peak collector current			-	-	-200	mA
h_{FE}	DC current gain	V_{CE} = -6 V; I_C = -1 mA; T_{amb} = 25 °C		180	-	390	

5. Pinning information

Table 2. Pinning information

Pin	Symbol	Description	Simplified outline	Graphic symbol
1	B	base	 Transparent top view **DFN1006-3 (SOT883)**	 *sym013*
2	E	emitter		
3	C	collector		

6. Ordering information

Table 3. Ordering information

Type number	Package		
	Name	Description	Version
2PA1774RM	DFN1006-3	plastic, leadless ultra small package; 3 terminals; 0.35 mm pitch; 1 mm x 0.6 mm x 0.48 mm body	SOT883

7. Marking

Table 4. Marking codes

Type number	Marking code
2PA1774RM	PA

8. Limiting values

Table 5. Limiting values

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

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			-	-100	mA
I_{CM}	peak collector current			-	-200	mA
I_{BM}	peak base current	$t_p \leq 1$ ms		-	-100	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25$ °C	[1]	-	250	mW
			[2]	-	430	mW
T_j	junction temperature			-	150	°C
T_{amb}	ambient temperature			-65	150	°C
T_{stg}	storage temperature			-65	150	°C

[1] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided 60 µm copper, tin-plated and standard footprint.
[2] Device mounted on a FR4 printed-circuit board, single-sided copper, mounting pad for collector 1 cm^2.

9. Thermal characteristics

Table 6. Thermal characteristics

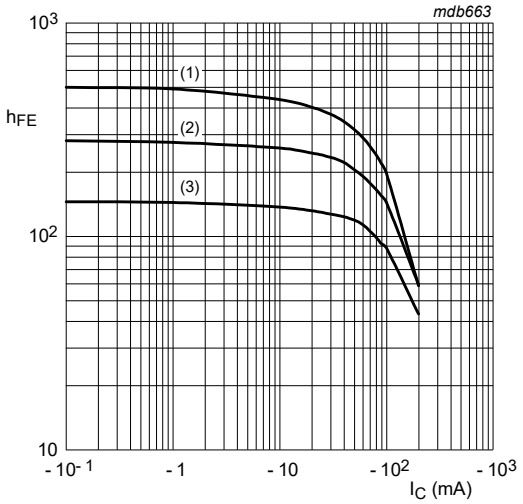
Symbol	Parameter	Conditions		Min	Typ	Max	Unit
$R_{th(j-a)}$	thermal resistance from junction to ambient	in free air	[1]	-	-	500	K/W
			[2]	-	-	290	K/W

[1] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided 60 µm copper, tin-plated and standard footprint.
[2] Device mounted on a FR4 printed-circuit board, single-sided copper, mounting pad for collector 1 cm^2.

10. Characteristics

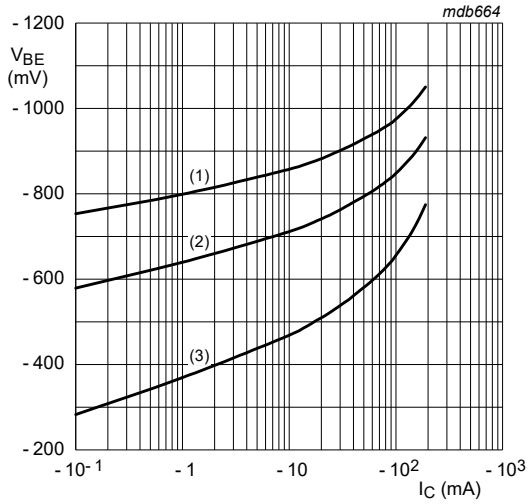
Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
I_{CBO}	collector-base cut-off current	V_{CB} = -30 V; I_E = 0 A; T_{amb} = 25 °C		-	-	-100	nA
		V_{CB} = -30 V; I_E = 0 A; T_j = 150 °C		-	-	-5	µA
I_{EBO}	emitter-base cut-off current	V_{EB} = -4 V; I_C = 0 A; T_{amb} = 25 °C		-	-	-100	nA
h_{FE}	DC current gain	V_{CE} = -6 V; I_C = -1 mA; T_{amb} = 25 °C		180	-	390	
V_{CEsat}	collector-emitter saturation voltage	I_C = -50 mA; I_B = -5 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	-	-200	mV
C_c	collector capacitance	V_{CB} = -12 V; I_E = 0 A; i_e = 0 A; f = 1 MHz; T_{amb} = 25 °C		-	-	2.2	pF
f_T	transition frequency	V_{CE} = -12 V; I_C = -2 mA; f = 100 MHz; T_{amb} = 25 °C		100	-	-	MHz



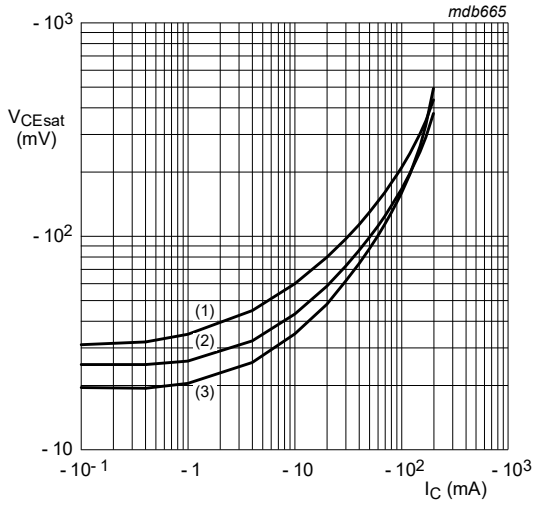
V_{CE} = -6 V
(1) T_{amb} = 150 °C
(2) T_{amb} = 25 °C
(3) T_{amb} = -55 °C

Fig. 1. DC current gain as a function of collector current; typical values



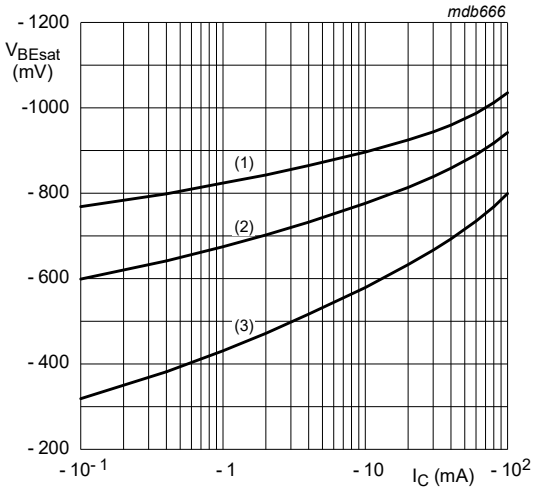
V_{CE} = -6 V
(1) T_{amb} = -55 °C
(2) T_{amb} = 25 °C
(3) T_{amb} = 150 °C

Fig. 2. Base-emitter voltage as a function of collector current; typical values



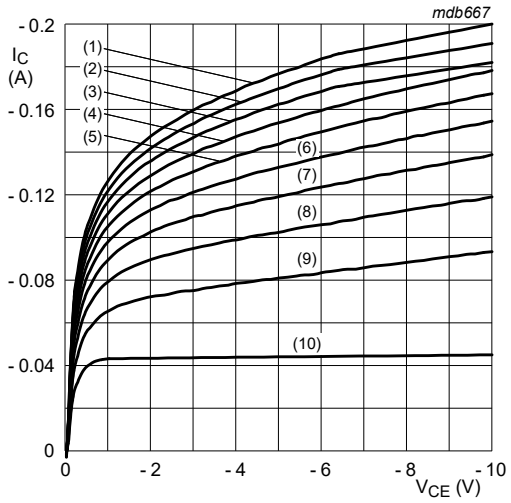
I_C/I_B = 10
(1) T_{amb} = 150 °C
(2) T_{amb}= 25 °C
(3) T_{amb}= -55 °C

Fig. 3. Collector-emitter saturation voltage as a function of collector current; typical values



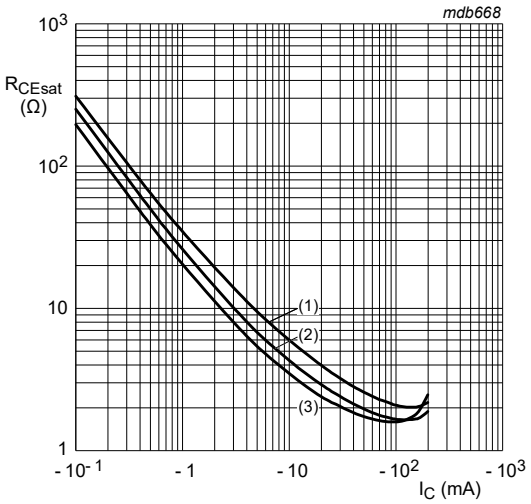
I_C/I_B =10
(1) T_{amb} = -55 °C
(2) T_{amb} = 25 °C
(3) T_{amb} = 150 °C

Fig. 4. Base-emitter saturation voltage as a function of collector current; typical values



(1) I_B = -2.70 mA
(2) I_B = -2.43 mA
(3) I_B = -2.16 mA
(4) I_B = -1.89 mA
(5) I_B = -1.62 mA
(6) I_B = -1.35 mA
(7) I_B = -1.08 mA
(8) I_B = -0.81 mA
(9) I_B = -0.54 mA
(10) I_B = -0.27 mA

Fig. 5. Collector current as a function of collector-emitter voltage; typical values



I_C/I_B = 10
(1) T_{amb} = 150 °C
(2) T_{amb}= 25 °C
(3) T_{amb}= -55 °C

Fig. 6. Collector-emitter equivalent on-resistance as a function of collector current; typical values

11. Test information

Quality information

This product has been qualified in accordance with the Automotive Electronics Council (AEC) standard *Q101 - Stress test qualification for discrete semiconductors*, and is suitable for use in automotive applications.

12. Package outline

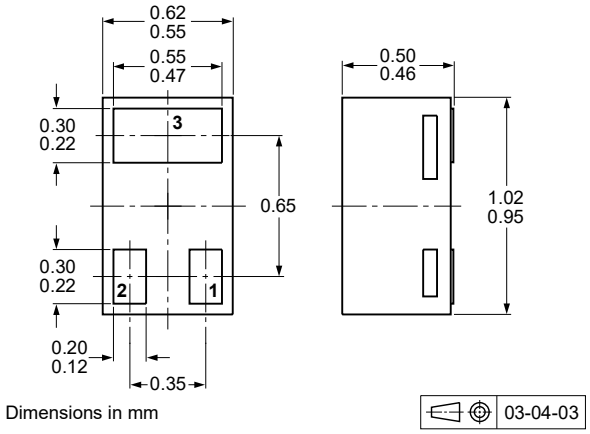
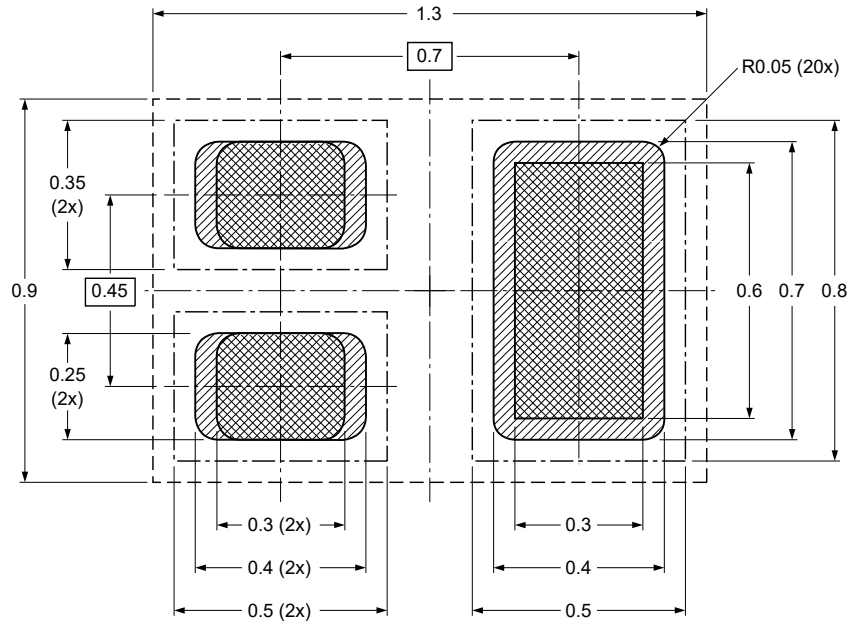


Fig. 7. Package outline DFN1006-3 (SOT883)

13. Soldering

Footprint information for reflow soldering of DFN1006-3 (SOT883) package **SOT883**



occupied area

solder resist

solder lands

solder paste

Dimensions in mm

Issue date ~~19-07-10~~ 20-02-25

sot883_fr

Fig. 8. Reflow soldering footprint for DFN1006-3 (SOT883)

14. Revision history

Table 8. Revision history

Data sheet ID	Release date	Data sheet status	Change notice	Supersedes
2PA1774RM v.2	20260123	Product data sheet	-	2PA1774M_SERIES v.1
Modifications:	• The format of this data sheet has been redesigned to comply with the identity guidelines of Nexperia. • Legal texts have been adapted to the new company name where appropriate. • Family data sheet split to single type data sheets.			
2PA1774M_SERIES v.1	20040219	Product data sheet	-	-

15. Legal information

Data sheet status

Document status [1][2]	Product status [3]	Definition
Objective [short] data sheet	Development	This document contains data from the objective specification for product development.
Preliminary [short] data sheet	Qualification	This document contains data from the preliminary specification.
Product [short] data sheet	Production	This document contains the product specification.

[1] Please consult the most recently issued document before initiating or completing a design.
[2] The term 'short data sheet' is explained in section "Definitions".
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