



PUMT1

PNP general purpose double transistor

16 July 2026

Product data sheet

1. General description

Two independently operating PNP transistors in a very small SOT363-3 (SC-88) Surface-Mounted Device (SMD) plastic package.

NPN complement: PUMX1

2. Features and benefits

- Low current (max. 100 mA)
- Low voltage (max. 40 V)
- Reduces number of components and boardspace
- AEC-Q101 qualified

3. Applications

- General purpose switching and amplification

4. Quick reference data

Table 1. Quick reference data

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Per transistor						
V_{CEO}	collector-emitter voltage	open base	-	-	-40	V
I_C	collector current		-	-	-100	mA
h_{FE}	DC current gain	$V_{CE} = -6\text{ V}$; $I_C = -1\text{ mA}$; $T_{amb} = 25\text{ °C}$	120	-	-	

5. Pinning information

Table 2. Pinning information

Pin	Symbol	Description	Simplified outline	Graphic symbol
1	E1	emitter TR1	Transparent top view TSSOP6 (SOT363-3)	sym018
2	B1	base TR1		
3	C2	collector TR2		
4	E2	emitter TR2		
5	B2	base TR2		
6	C1	collector TR1		

6. Ordering information

Table 3. Ordering information

Type number	Package		
	Name	Description	Version
PUMT1	TSSOP6	Plastic surface-mounted package; 6 leads	SOT363-3

7. Marking

Table 4. Marking codes

Type number	Marking code[1]
PUMT1	F%F

[1] % = placeholder for manufacturing site code

8. Limiting values

Table 5. 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			-	-100	mA
I_{CM}	peak collector current			-	-200	mA
I_{BM}	peak base current			-	-200	mA
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$		-	200	mW
T_j	junction temperature			-	150	°C
T_{amb}	ambient temperature			-65	150	°C
T_{stg}	storage temperature			-65	150	°C
Per device						
P_{tot}	total power dissipation	$T_{amb} \leq 25\text{ °C}$	[1]	-	300	mW

[1] Device mounted on an FR4 Printed-Circuit Board (PCB).

9. Thermal characteristics

Table 6. Thermal characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
Per device							
$R_{th(j-a)}$	thermal resistance from junction to ambient		[1]	-	-	416	K/W

[1] Device mounted on an FR4 printed-circuit board.

10. Characteristics

Table 7. Characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Per transistor						
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	-	-	-10	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	120	-	-	
V _{CEsat}	collector-emitter saturation voltage	I _C = 50 mA; I _B = -5 mA; pulsed; t _p ≤ 300 µs; δ ≤ 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

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

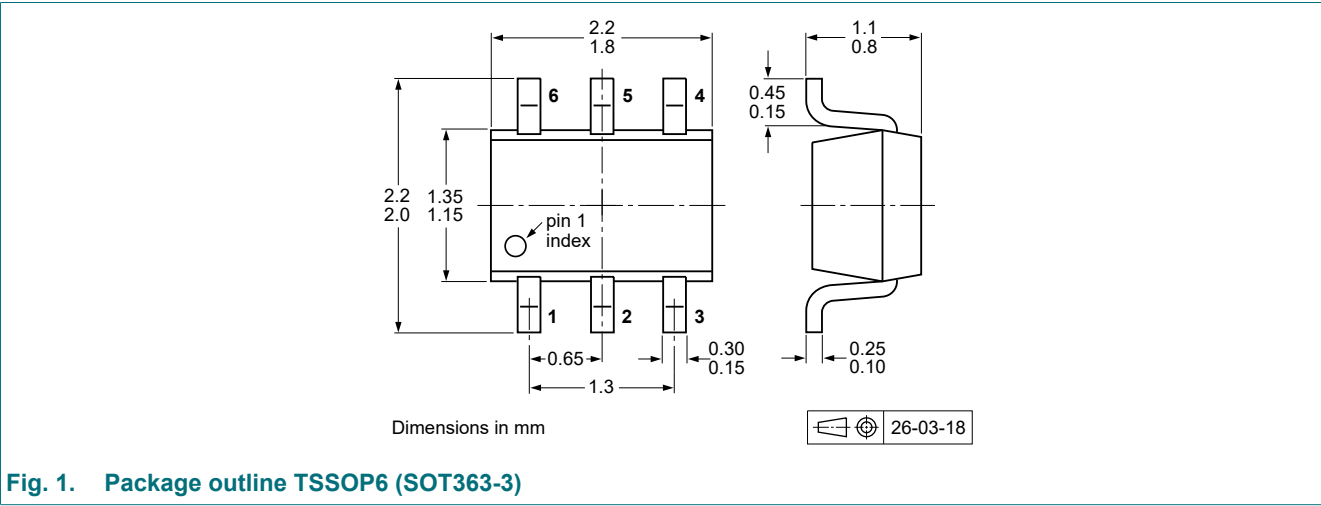


Fig. 1. Package outline TSSOP6 (SOT363-3)

13. Soldering

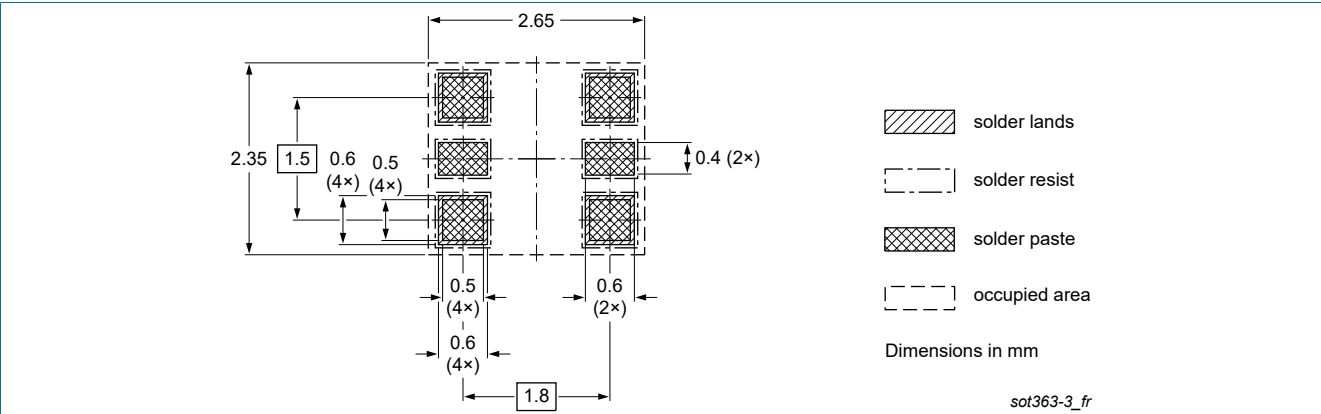


Fig. 2. Reflow soldering footprint for TSSOP6 (SOT363-3)

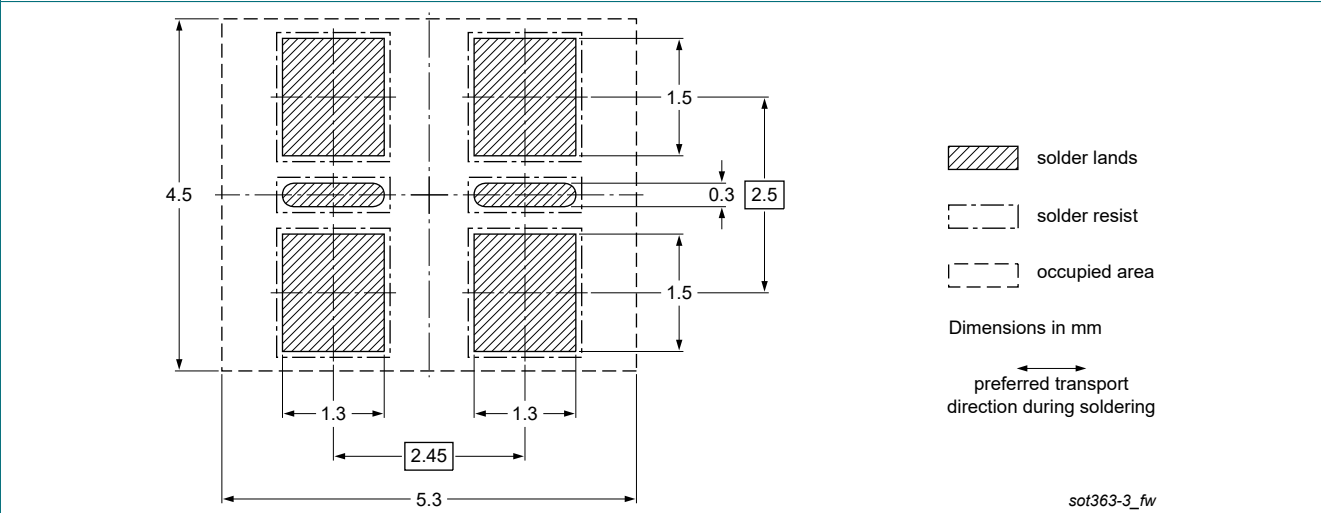


Fig. 3. Wave soldering footprint for TSSOP6 (SOT363-3)

14. Revision history

Table 8. Revision history

Data sheet ID	Release date	Data sheet status	Change notice	Supersedes
PUMT1 v.4	20260716	Product data sheet	-	PUMT1 v.3
Modification:	• Package changed from SOT363 to SOT363-3			
PUMT1 v.3	20250131	Product data sheet	-	PUMT1 v.2
PUMT1 v.2	20011219	Product data sheet	-	PUMT1 v.1
PUMT1 v.1	19990414	Product specification	-	-

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".
- [3] The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the internet at <https://www.nexperia.com>.

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