

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: 1PS79SB70-QX
Manufacturer: Nexperia USA Inc.
Package: SC-79, SOD-523
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/nexperia-usa-inc/1ps79sb70-qx.html>

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Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.



1PS79SB70-Q

General-purpose Schottky diode

6 August 2026

Product data sheet

1. General description

General-purpose Schottky diode in an ultra small SOD523 (SC-79) Surface-Mounted Device (SMD) flat lead plastic package.

2. Features and benefits

- High switching speed
- Low leakage current
- High breakdown voltage
- Low capacitance
- Qualified according to AEC-Q101 and recommended for use in automotive applications

3. Applications

- Ultra high-speed switching
- Voltage clamping

4. Quick reference data

Table 1. Quick reference data

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
I_F	forward current		-	-	70	mA
V_F	forward voltage	$I_F = 1 \text{ mA}$; pulsed; $t_p \leq 300 \mu\text{s}$; $\delta \leq 0.02$; $T_{\text{amb}} = 25 \text{ }^\circ\text{C}$	-	-	410	mV
V_R	reverse voltage	$T_j = 25 \text{ }^\circ\text{C}$	-	-	70	V

5. Pinning information

Table 2. Pinning information

Pin	Symbol	Description	Simplified outline	Graphic symbol
1	K	cathode[1]	 SC-79 (SOD523)	 aaa-003679
2	A	anode		

[1] The marking bar indicates the cathode.

6. Ordering information

Table 3. Ordering information

Type number	Package		
	Name	Description	Version
1PS79SB70-Q	SC-79	plastic, surface-mounted package; 2 leads; 1.2 mm x 0.8 mm x 0.6 mm body	SOD523

7. Marking

Table 4. Marking codes

Type number	Marking code
1PS79SB70-Q	G

8. Limiting values

Table 5. Limiting values

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

Symbol	Parameter	Conditions		Min	Max	Unit
V_R	reverse voltage	$T_j = 25\text{ }^{\circ}\text{C}$		-	70	V
I_F	forward current			-	70	mA
I_{FRM}	repetitive peak forward current	$t_p \leq 1\text{ s}$; $\delta \leq 0.5$		-	70	mA
I_{FSM}	non-repetitive peak forward current	$t_p \leq 10\text{ ms}$; $T_{j(\text{init})} = 25\text{ }^{\circ}\text{C}$		-	100	mA
T_j	junction temperature			-	150	$^{\circ}\text{C}$
T_{amb}	ambient temperature			-65	150	$^{\circ}\text{C}$
T_{stg}	storage temperature			-65	150	$^{\circ}\text{C}$

9. Thermal characteristics

Table 6. Thermal characteristics

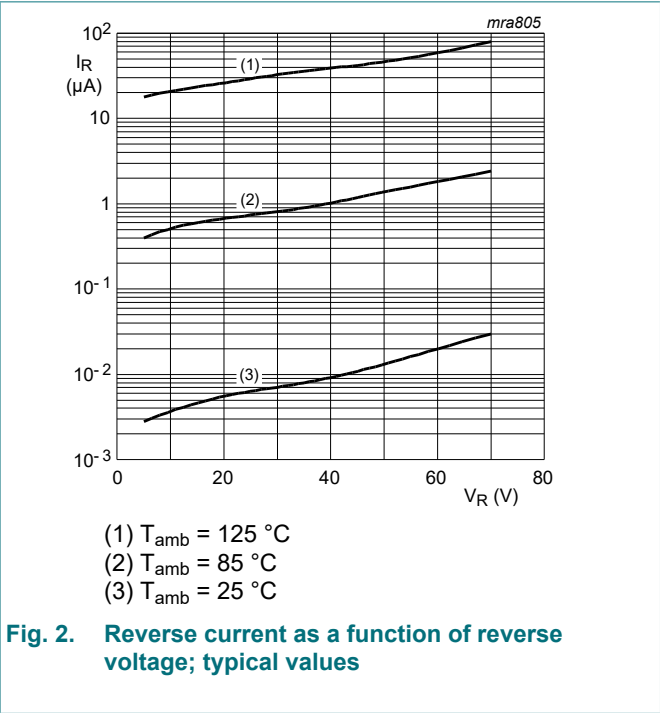
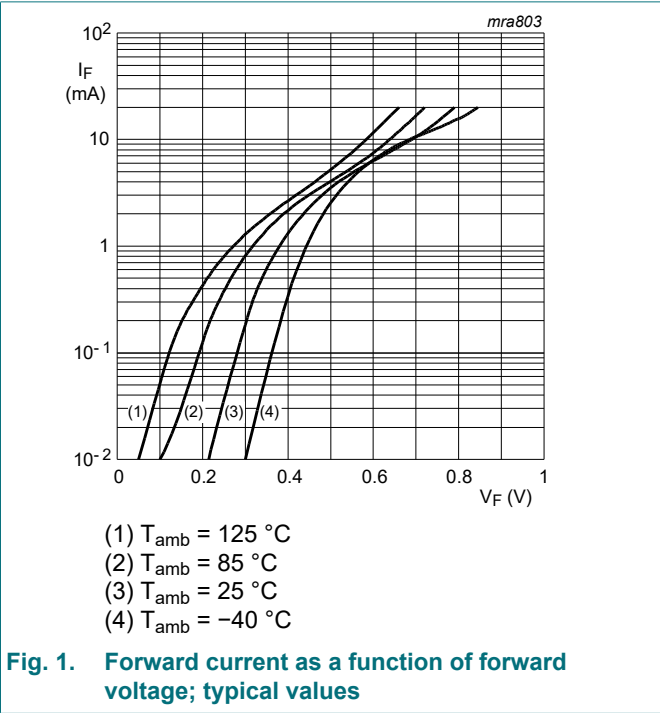
Symbol	Parameter	Conditions		Min	Typ	Max	Unit
$R_{\text{th}(j-a)}$	thermal resistance from junction to ambient	in free air	[1] [2]	-	-	450	K/W

[1] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.
[2] Reflow soldering is the only recommended soldering method.

10. Characteristics

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
V _F	forward voltage	I _F = 1 mA; pulsed; t _p ≤ 300 μs; δ ≤ 0.02; T _{amb} = 25 °C		-	-	410	mV
		I _F = 10 mA; pulsed; t _p ≤ 300 μs; δ ≤ 0.02; T _{amb} = 25 °C		-	-	750	mV
		I _F = 15 mA; pulsed; t _p ≤ 300 μs; δ ≤ 0.02; T _{amb} = 25 °C		-	-	1	V
I _R	reverse current	V _R = 50 V; T _{amb} = 25 °C		-	-	100	nA
		V _R = 70 V; T _{amb} = 25 °C		-	-	10	μA
C _d	diode capacitance	V _R = 0 V; f = 1 MHz; T _{amb} = 25 °C		-	-	2	pF



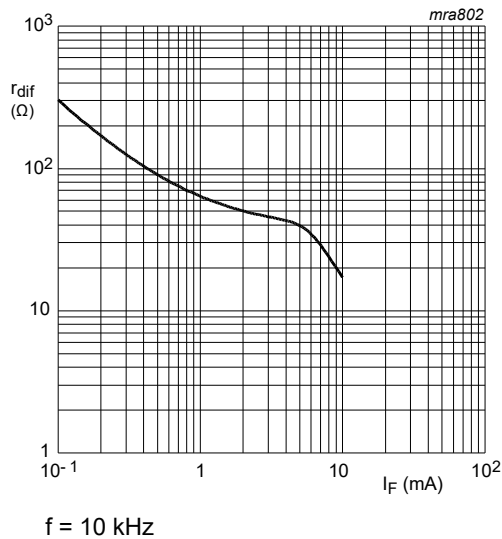


Fig. 3. Differential forward resistance as a function of forward current; typical values

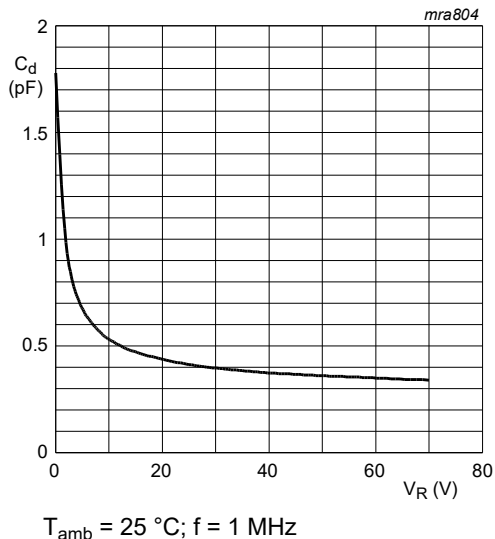


Fig. 4. Diode capacitance as a function of reverse voltage; typical values

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

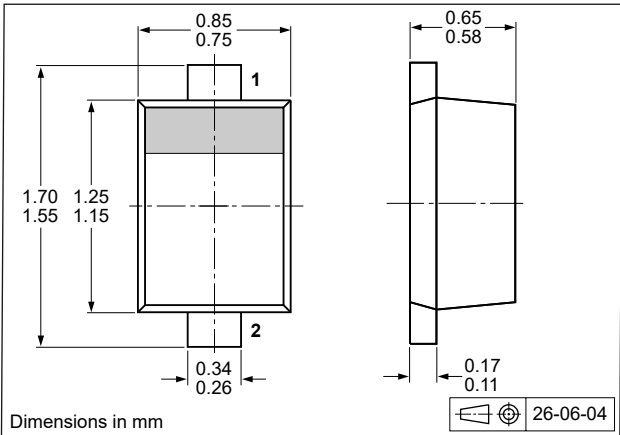


Fig. 5. Package outline SC-79 (SOD523)

13. Soldering

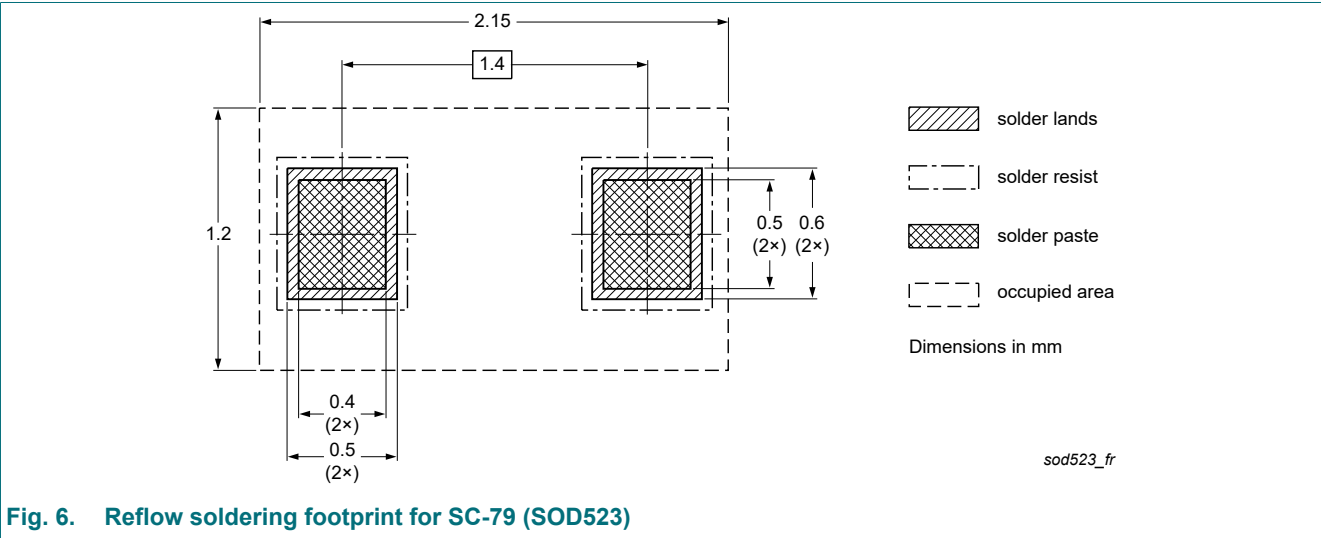


Fig. 6. Reflow soldering footprint for SC-79 (SOD523)

14. Revision history

Table 8. Revision history

Data sheet ID	Release date	Data sheet status	Change notice	Supersedes
1PS79SB70-Q v.3	20260806	Product data sheet	-	1PS79SB70-Q v.2
Modifications:	• Aligned SOD523 package outline drawing			
1PS79SB70-Q v.2	20230119	Product data sheet	-	1PS79SB70-Q v.1
1PS79SB70-Q v.1	20220106	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".
- [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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