



BAS40VY

General-purpose triple Schottky diode

16 July 2026

Product data sheet

1. General description

General-purpose, electrically isolated triple Schottky diode, encapsulated in a very small SOT363-3 (SC-88) Surface-Mounted Device (SMD) plastic package.

2. Features and benefits

- High switching speed
- Low leakage current
- High breakdown voltage
- Low capacitance

3. Applications

- Ultra high-speed switching
- Voltage clamping

4. Quick reference data

Table 1. Quick reference data

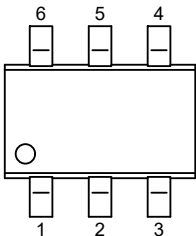
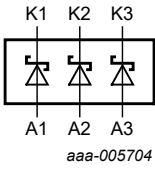
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Per diode						
I_F	forward current		[1] [2]	-	120	mA
V_F	forward voltage	$I_F = 1 \text{ mA}$; pulsed; $t_p \leq 300 \text{ } \mu\text{s}$; $\delta \leq 0.02$; $T_{\text{amb}} = 25 \text{ } ^\circ\text{C}$	-	-	380	mV
V_R	reverse voltage	$T_j = 25 \text{ } ^\circ\text{C}$	-	-	40	V

[1] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.

[2] Single diode loaded.

5. Pinning information

Table 2. Pinning information

Pin	Symbol	Description	Simplified outline	Graphic symbol
1	A1	anode (diode 1)	 Transparent top view TSSOP6 (SOT363-3)	 aaa-005704
2	A2	anode (diode 2)		
3	A3	anode (diode 3)		
4	K3	cathode (diode 3)		
5	K2	cathode (diode 2)		
6	K1	cathode (diode 1)		

6. Ordering information

Table 3. Ordering information

Type number	Package		
	Name	Description	Version
BAS40VY	TSSOP6	Plastic surface-mounted package; 6 leads	SOT363-3

7. Marking

Table 4. Marking codes

Type number	Marking code[1]
BAS40VY	2L%

[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 diode						
V _R	reverse voltage	T _j = 25 °C		-	40	V
I _F	forward current		[1] [2]	-	120	mA
I _{FRM}	repetitive peak forward current	t _p ≤ 0.5 ms; δ ≤ 0.25		-	1	A
I _{FSM}	non-repetitive peak forward current	t _p = 50 μs; square wave; T _{j(init)} = 25 °C		-	8.5	A
		t _p = 10 ms; square wave; T _{j(init)} = 25 °C		-	1.5	A
T _j	junction temperature			-	150	°C
T _{amb}	ambient temperature			-55	150	°C
T _{stg}	storage temperature			-65	150	°C

[1] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.

[2] Single diode loaded.

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]	-	-	510	K/W
			[2]	-	-	440	K/W
R _{th(j-sp)}	thermal resistance from junction to solder point		[3]	-	-	130	K/W

[1] Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

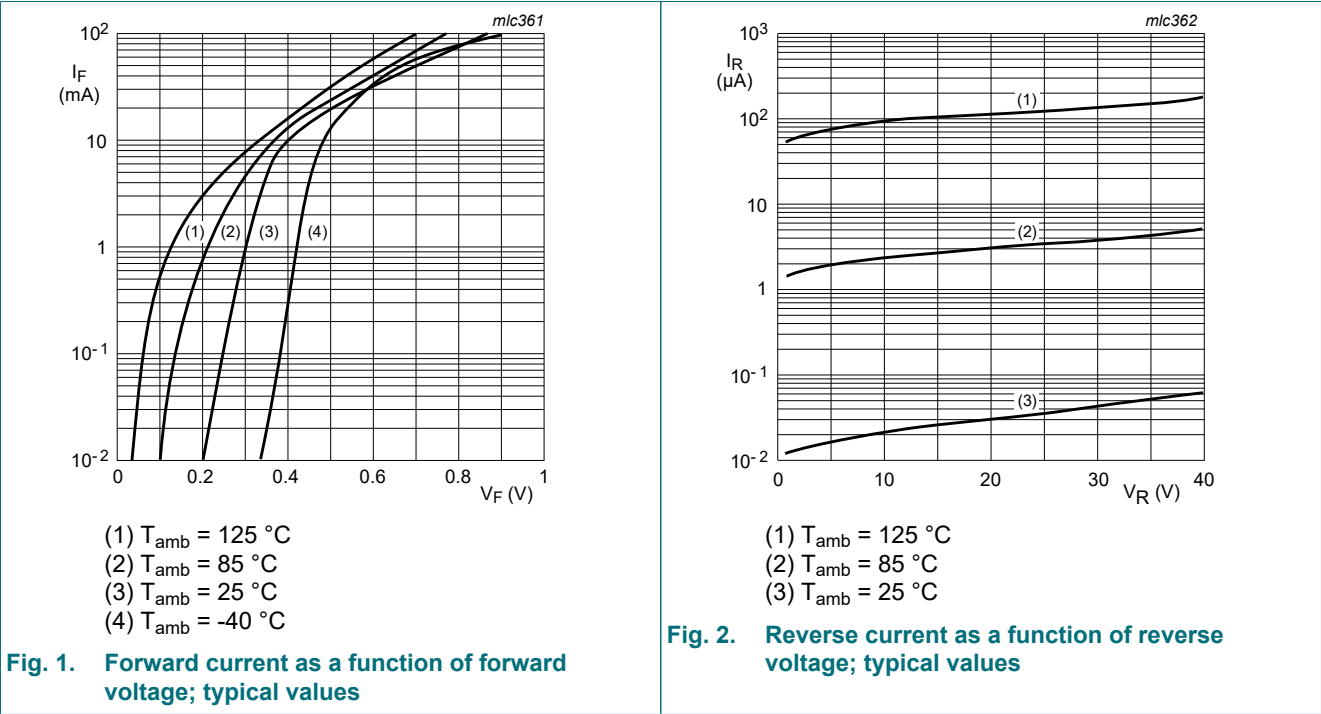
[2] Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode 1 cm².

[3] Soldering point at pins 4, 5 and 6.

10. Characteristics

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
Per diode							
V _F	forward voltage	I _F = 1 mA; pulsed; t _p ≤ 300 μs; δ ≤ 0.02; T _{amb} = 25 °C		-	-	380	mV
		I _F = 10 mA; pulsed; t _p ≤ 300 μs; δ ≤ 0.02; T _{amb} = 25 °C		-	-	500	mV
		I _F = 40 mA; pulsed; t _p ≤ 300 μs; δ ≤ 0.02; T _{amb} = 25 °C		-	-	1	V
I _R	reverse current	V _R = 30 V; T _{amb} = 25 °C		-	-	1	μA
		V _R = 40 V; T _{amb} = 25 °C		-	-	10	μA
C _d	diode capacitance	V _R = 0 V; f = 1 MHz; T _{amb} = 25 °C		-	-	5	pF



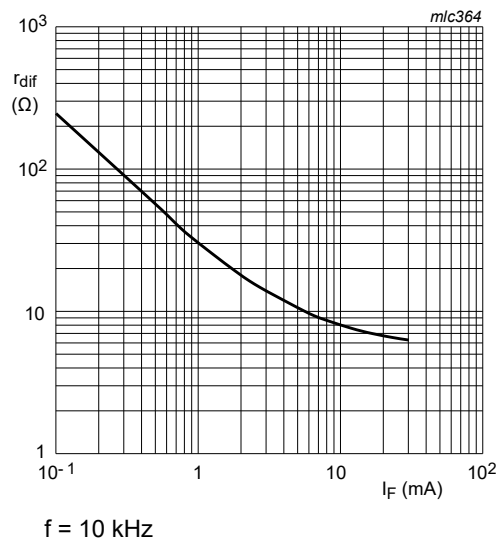


Fig. 3. Differential resistance as a function of forward current; typical values

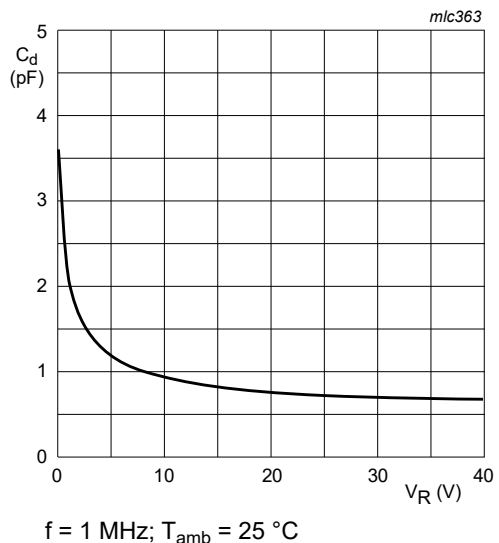


Fig. 4. Diode capacitance as a function of reverse voltage; typical values

11. Package outline

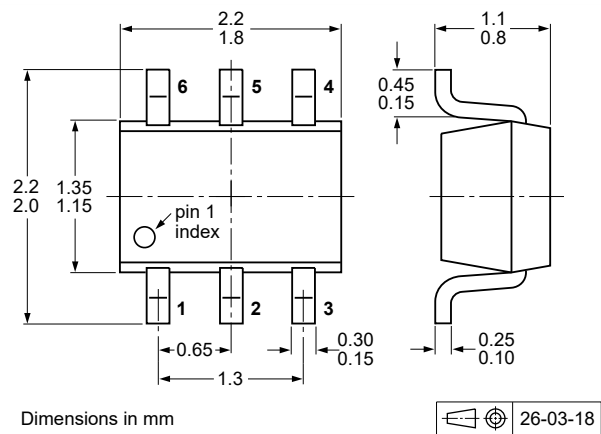


Fig. 5. Package outline TSSOP6 (SOT363-3)

12. Soldering

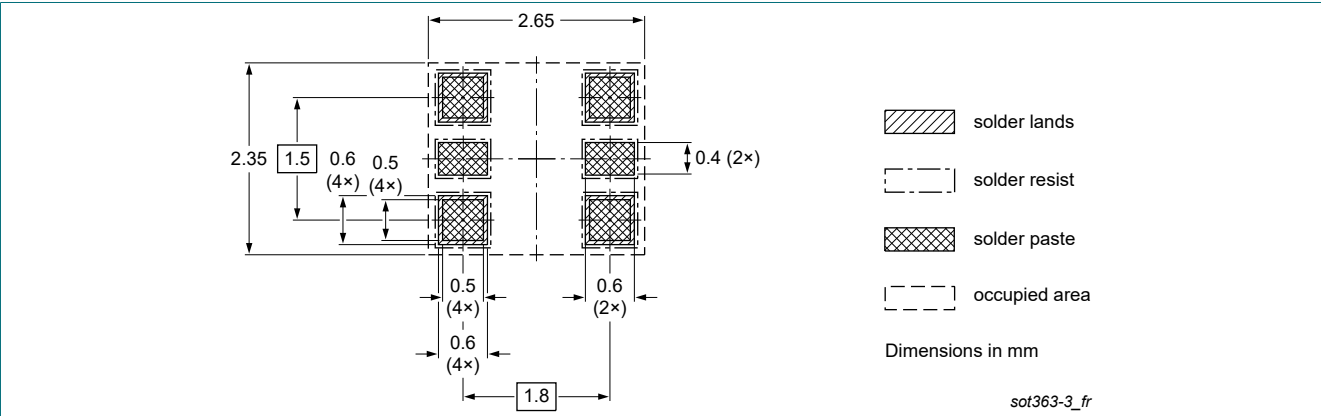


Fig. 6. Reflow soldering footprint for TSSOP6 (SOT363-3)

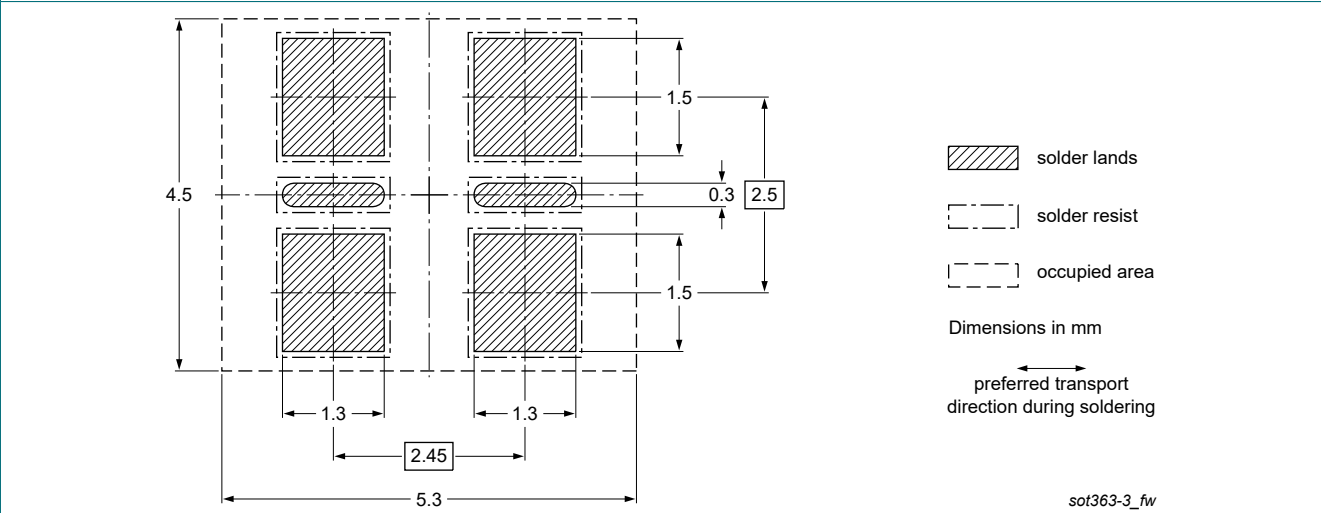


Fig. 7. Wave soldering footprint for TSSOP6 (SOT363-3)

13. Revision history

Table 8. Revision history

Data sheet ID	Release date	Data sheet status	Change notice	Supersedes
BAS40VY v.2	20260716	Product data sheet	-	BAS40VY v.1
Modifications:	• Package changed from SOT363 to SOT363-3			
BAS40VY v.1	20230420	Product data sheet	-	-

14. 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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