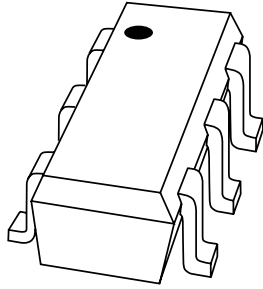


DATA SHEET



BAT754L

Schottky barrier triple diode

Product specification

2001 Jan 18

Schottky barrier triple diode

BAT754L

FEATURES

- Very low forward voltage
- Guard ring protected
- Low diode capacitance
- Three independent diodes in a small plastic SMD package.

APPLICATIONS

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Blocking diodes
- Low power consumption applications (e.g. hand-held applications).

DESCRIPTION

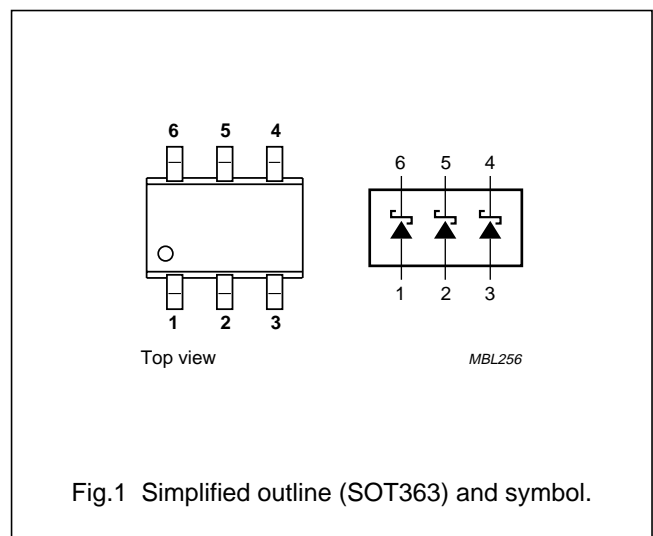
Three internal (galvanic) isolated silicon epitaxial Schottky barrier diodes in a SOT363 small SMD plastic package.

MARKING

TYPE NUMBER	MARKING CODE
BAT754L	L1

PINNING

PIN	DESCRIPTION
1	anode 1
2	anode 2
3	anode 3
4	cathode 3
5	cathode 2
6	cathode 1



LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
Per diode					
V_R	continuous reverse voltage		–	30	V
I_F	continuous forward current		–	200	mA
I_{FRM}	repetitive peak forward current	$t_p < 1\text{ s}; \delta < 0.5$	–	300	mA
I_{FSM}	non-repetitive peak forward current	$t_p < 10\text{ ms}$	–	600	mA
T_{stg}	storage temperature		–65	+150	°C
T_j	junction temperature		–	125	°C
T_{amb}	operating ambient temperature		–65	+125	°C

Schottky barrier triple diode

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	416	K/W

Note

1. Refer to SOT363 standard mounting conditions.

ELECTRICAL CHARACTERISTICS

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

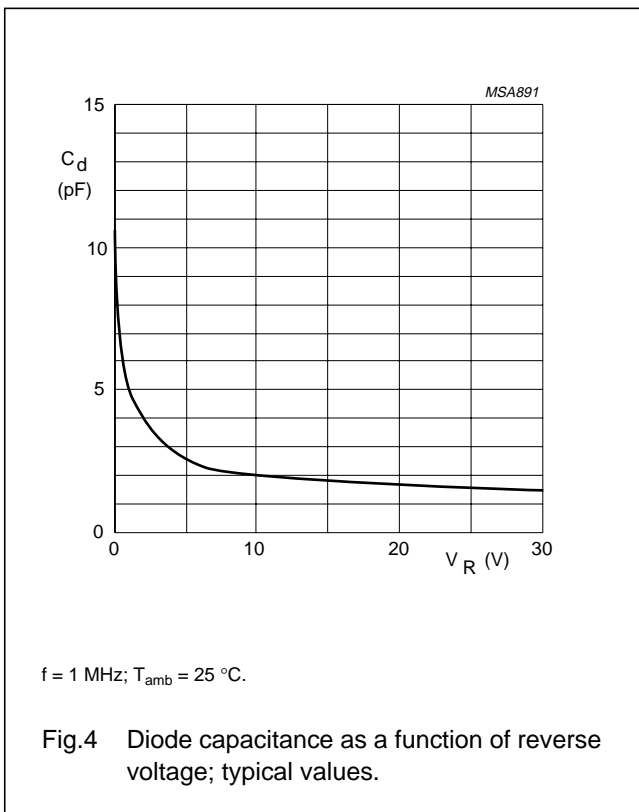
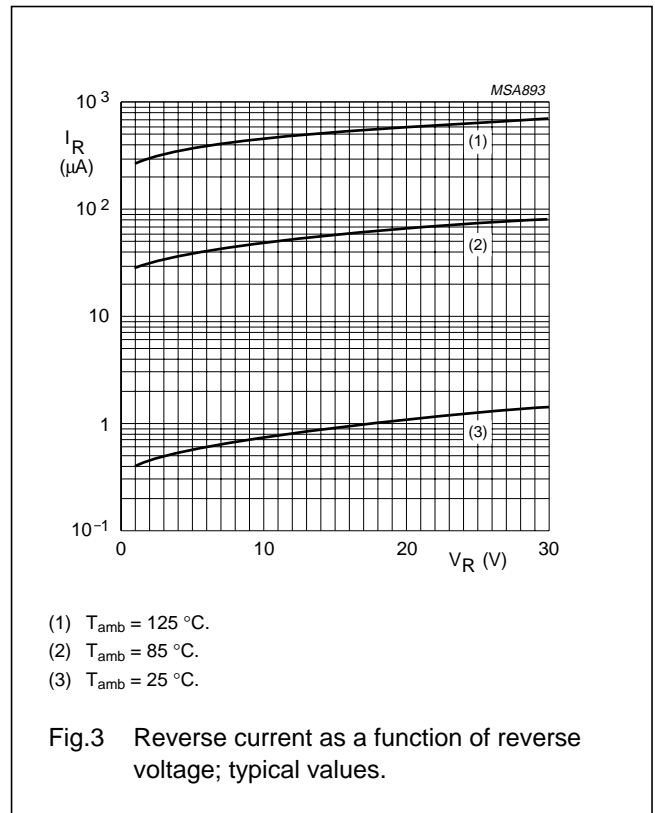
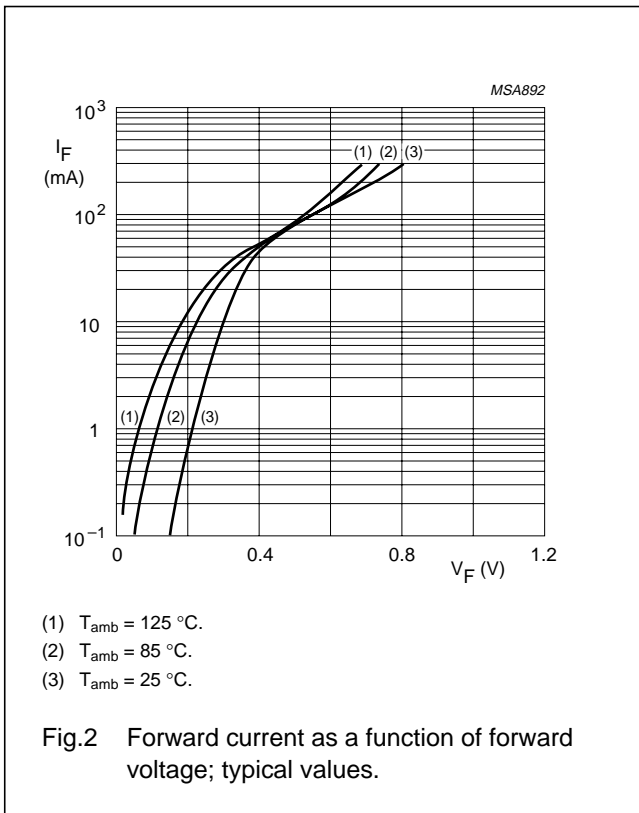
SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
Per diode				
V_F	forward voltage	note 1; see Fig.2		
		$I_F = 0.1\text{ mA}$	200	mV
		$I_F = 1\text{ mA}$	260	mV
		$I_F = 10\text{ mA}$	340	mV
		$I_F = 30\text{ mA}$	420	mV
		$I_F = 100\text{ mA}$	750	mV
I_R	reverse current	$V_R = 25\text{ V}$; note 1; see Fig.3	2	μA
C_d	diode capacitance	$V_R = 1\text{ V}$; $f = 1\text{ MHz}$; see Fig.4	10	pF

Note

1. Pulse test: pulse width = $300\ \mu\text{s}$; $\delta = 0.02$.

Schottky barrier triple diode

BAT754L



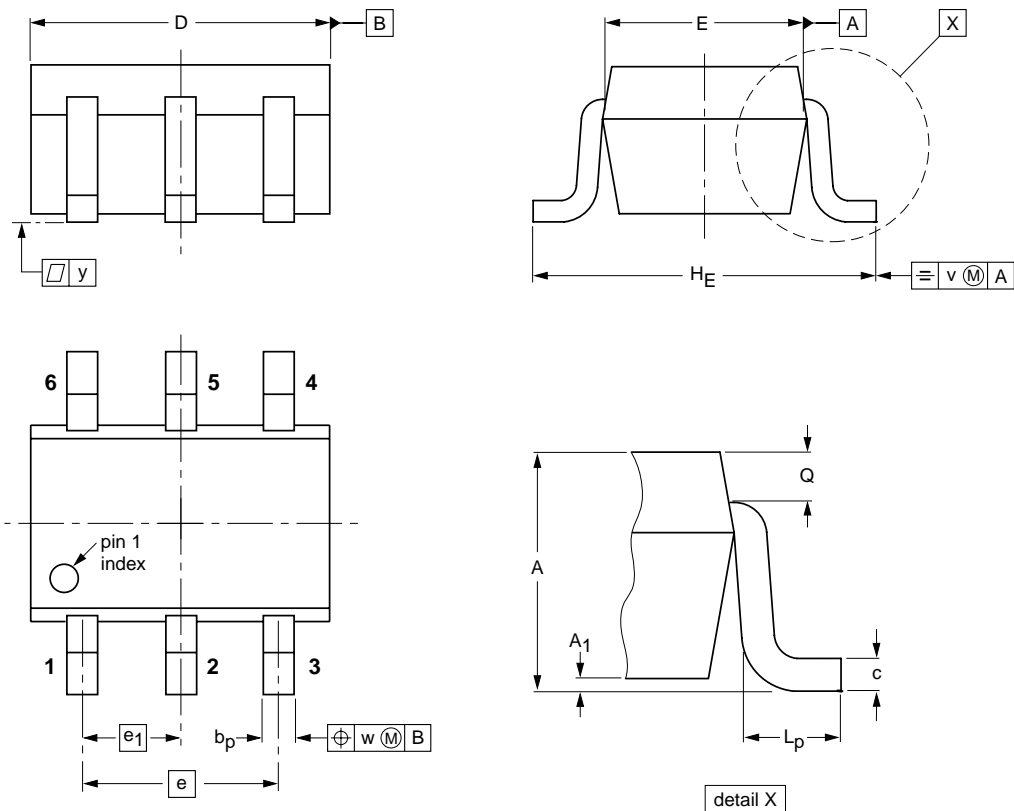
Schottky barrier triple diode

BAT754L

PACKAGE OUTLINE

Plastic surface mounted package; 6 leads

SOT363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT363			SC-88			97-02-28

Schottky barrier triple diode

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DATA SHEET STATUS

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS ⁽¹⁾
Objective specification	Development	This data sheet contains the design target or goal specifications for product development. Specification may change in any manner without notice.
Preliminary specification	Qualification	This data sheet contains preliminary data, and supplementary data will be published at a later date. Philips Semiconductors reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Philips Semiconductors reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

Note

1. Please consult the most recently issued data sheet before initiating or completing a design.

DEFINITIONS

Short-form specification — The data in a short-form specification is extracted from a full data sheet with the same type number and title. For detailed information see the relevant data sheet or data handbook.

Limiting values definition — Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.

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Schottky barrier triple diode

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