

SOT-23 Formed SMD Package

BAV99

SILICON PLANAR EPITAXIAL HIGH-SPEED DIODES

Silicon planar high-speed switching series diode pair

Marking

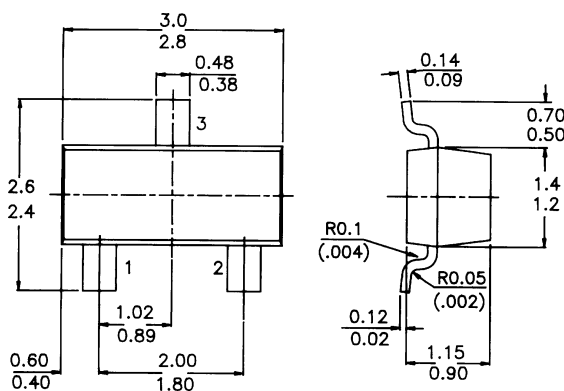
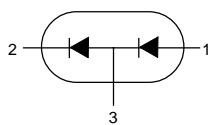
BAV99 = A7

PACKAGE OUTLINE DETAILS

ALL DIMENSIONS IN mm

Pin configuration

- 1 = ANODE
- 2 = CATHODE
- 3 = CATHODE/ANODE



ABSOLUTE MAXIMUM RATINGS

Continuous reverse voltage	V_R	max.	75 V
Repetitive peak reverse voltage	V_{RRM}	max.	85 V
Repetitive peak forward current	I_{FRM}	max.	450 mA
Junction temperature	T_j	max.	150 °C
Forward voltage at $I_F = 50$ mA	V_F	<	1.0 V
Reverse recovery time when switched from $I_F = 10$ mA to $I_R = 10$ mA; $R_L = 100 \Omega$; measured at $I_R = 1$ mA	t_{rr}	<	4 ns
Recovery charge when switched from $I_F = 10$ mA to $V_R = 5$ V; $R_L = 100 \Omega$	Q_s	<	45 pC

RATINGS (per diode) (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting values

Continuous reverse voltage	V_R	max.	75 V
Repetitive peak reverse voltage	V_{RRM}	max.	85 V

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Forward current (d.c.)	I_F	max.	215 mA
Repetitive peak forward current	I_{FRM}	max.	450 mA
Non-repetitive peak forward current (per crystal)			
$t = 1\mu s$	I_{FSM}	max.	4 A
$t = 1 ms$	I_{FSM}	max.	1 A
$t = 1 s$	I_{FSM}	max.	0,5 A
Storage temperature range	T_{stg}		-55 to +150 °C
Junction temperature	T_j	max.	150 °C
THERMAL RESISTANCE			
From junction to ambient	R_{thj-a}	=	500 KW

CHARACTERISTICS (per diode) (at $T_A = 25^\circ C$ unless otherwise specified)

$T_j = 25^\circ C$ unless otherwise specified

Forward voltage

$I_F = 1 mA$	V_F	<	715 mV
$I_F = 10 mA$	V_F	<	855 mV
$I_F = 50 mA$	V_F	<	1000 mV
$I_F = 150 mA$	V_F	<	1250 mV

Reverse current

$V_R = 25V; T_j = 150^\circ C$	I_R	<	30 μA
$V_R = 75 V$	I_R	<	1,0 μA
$V_R = 75V; T_j = 150^\circ C$	I_R	<	50 μA

Diode capacitance

$V_R = 0; f = 1 MHz$	C_d	<	1,5 pF
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Forward recovery voltage when switched to

$I_F = 10mA; t_r = 20ns$	V_{fr}	<	1,75 V
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Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/ CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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