

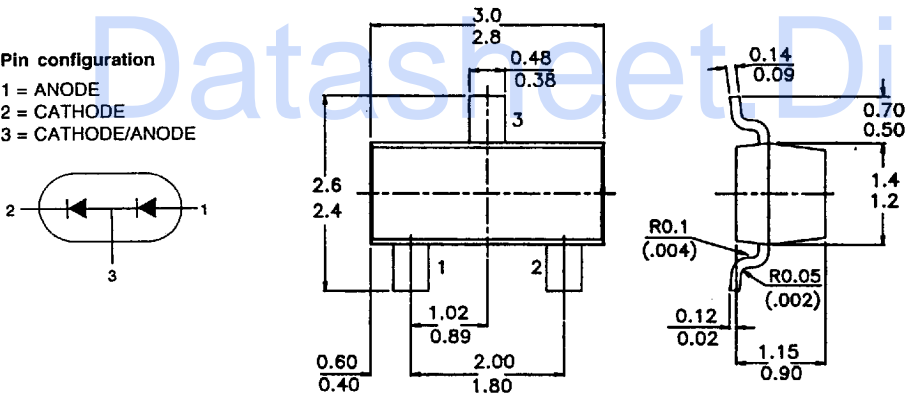
SILICON PLANAR EPITAXIAL HIGH-SPEED DIODES

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
<b>THERMAL RESISTANCE</b>			
From junction to ambient	$R_{thj-a}$	=	500 K/W
<b>CHARACTERISTICS (per diode) (at <math>T_A = 25^\circ C</math> unless otherwise specified)</b>			
$T_j = 25^\circ C$ unless otherwise specified			
<b>Forward voltage</b>			
$I_F = 1 mA$	$V_F$	<	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
<b>Reverse current</b>			
$V_R = 25V; T_j = 150^\circ C$	$I_R$	<	30 $\mu A$
$V_R = 75 V$	$I_R$	<	1,0 $\mu A$
$V_R = 75V; T_j = 150^\circ C$	$I_R$	<	50 $\mu A$
<b>Diode capacitance</b>			
$V_R = 0; f = 1 MHz$	$C_d$	<	1,5 pF
<b>Forward recovery voltage when switched to</b>			
$I_F = 10mA; t_r = 20ns$	$V_{fr}$	<	1,75 V

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