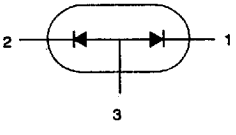
SILICON PLANAR EPITAXIAL HIGH–SPEED DIODES

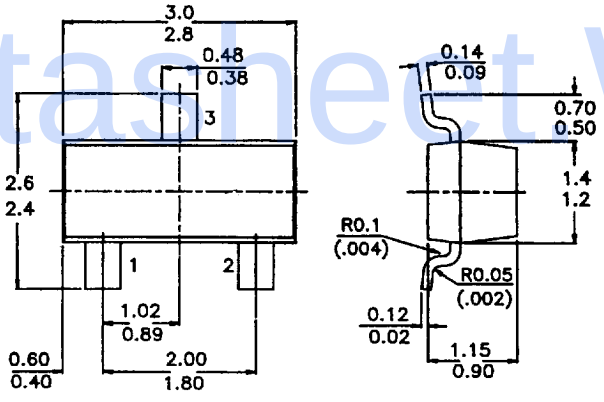
Silicon planar high-speed switching series diode pair

Marking
BAW56 = A1

PACKAGE OUTLINE DETAILS
ALL DIMENSIONS IN mm

Pin configuration
1 = CATHODE
2 = CATHODE
3 = 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 Ω; 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 Ω	Q_s	<	45 pC

RATINGS (per diode) (at T_A = 25°C unless otherwise specified)

Limiting values

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

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 K/W

CHARACTERISTICS (per diode) (at $T_A = 25$°C unless otherwise specified)
$T_j = 25$ °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			
$V_R = 25V$; $T_j = 150$ °C	I_R	<	30 µA
$V_R = 75$ V	I_R	<	1,0 µA
$V_R = 75V$; $T_j = 150$ °C	I_R	<	50 µA
Diode capacitance			
$V_R = 0$; $f = 1$ MHz	C_d	<	2,0 pF
Forward recovery voltage when switched to			
$I_F = 10$mA; $t_r = 20$ns	V_{fr}	<	1,75 V