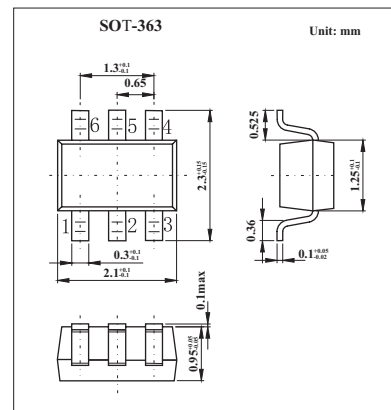


## High-Speed Double Diode Array

## BAW56S

## ■ Features

- Small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 85 V
- Repetitive peak forward current: max. 450 mA.

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Min	Max	Unit
Per diode					
repetitive peak forward current	$V_{RRM}$			85	V
continuous reverse voltage	$V_R$			75	V
continuous forward current	$I_F$	single diode loaded;		250	mA
		all diodes loaded;		100	mA
repetitive peak forward current	$I_{FRM}$			450	mA
non-repetitive peak forward current	$I_{FSM}$	square wave; $T_j = 25^\circ\text{C}$ prior to surge;		4	A
		$t = 1 \mu\text{s}$		1	
		$t = 1 \text{ms}$		0.5	
total power dissipation	$P_{tot}$	$T_s = 60^\circ\text{C}$ ; note 1		350	mW
storage temperature	$T_{stg}$		-65	+150	$^\circ\text{C}$
junction temperature	$T_j$		-65	+150	$^\circ\text{C}$
thermal resistance from junction to ambient	$R_{th\ j-a}$			255	K/W

Note

1. One or more diodes loaded.

**BAW56S**■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Max	Unit
forward voltage	$V_F$	$I_F = 1\text{ mA}$	715	mV
		$I_F = 10\text{ mA}$	855	
		$I_F = 50\text{ mA}$	1	
		$I_F = 150\text{ mA}$	1.25	
reverse current	$I_R$	$V_R = 25\text{ V}$	30	nA
		$V_R = 75\text{ V}$	1	$\mu\text{ A}$
		$V_R = 25\text{ V}; T_j = 150^\circ\text{C}$	30	$\mu\text{ A}$
		$V_R = 75\text{ V}; T_j = 150^\circ\text{C}$	50	$\mu\text{ A}$
diode capacitance	$C_d$	$V_R = 0; f = 1\text{ MHz};$	2	pF
reverse recovery time	$t_{rr}$	when switched from $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA};$ $R_L = 100\ \Omega$ ; measured at $I_R = 1\text{ mA};$	4	ns
forward recovery voltage	$V_{fr}$	when switched from $I_F = 10\text{ mA}; t_r = 20\text{ ns}$	1.75	V

## ■ Marking

Marking	A1t
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