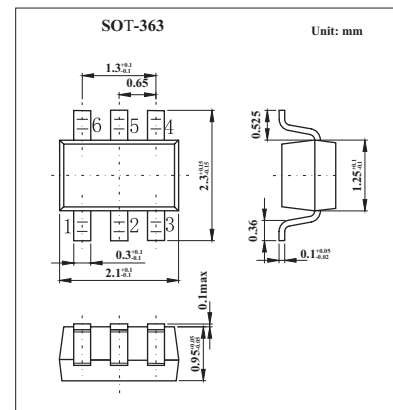


High Voltage Double Diode

BAW101S

■ Features

- Small plastic SMD package
- High switching speed: max. 50 ns
- High continuous reverse voltage: 300 V
- Electrically insulated diodes.

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

Parameter	Symbol	Conditions	Min	Max	Unit
Per diode					
continuous reverse voltage	V_R			300	V
		series connection		600	
repetitive peak forward current	V_{RRM}			300	V
		series connection		600	
continuous forward current	I_F	single diode loaded;		250	mA
		double diode loaded;		140	
repetitive peak forward current	I_{FRM}			625	mA
non-repetitive peak forward current	I_{FSM}	square wave; $T_j = 25^\circ\text{C}$ prior to surge; $t = 1 \mu\text{s}$		4.5	A
total power dissipation	P_{tot}	$T_s = 25^\circ\text{C}$		350	mW
storage temperature	T_{stg}		-65	+150	$^\circ\text{C}$
junction temperature	T_j			150	$^\circ\text{C}$
operating ambient temperature	T_{amb}		-65	+150	$^\circ\text{C}$
thermal resistance from junction to soldering point	$R_{th\ j-s}$			255	K/W
thermal resistance from junction to ambient	$R_{th\ j-a}$			357	K/W

BAW101S■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Max	Unit
reverse breakdown voltage	$V_{BR(R)}$	$I_R = 100 \mu\text{A}$	300		
forward voltage	V_F	$I_F = 100 \text{mA}$; note 1		1.1	mV
reverse current	I_R	$V_R = 25 \text{V}$		150	nA
		$V_R = 250 \text{V}$; $T_{amb} = 150^\circ\text{C}$		50	μA
reverse recovery time	t_{rr}	when switched from $I_F = 30 \text{mA}$ to $I_R = 30 \text{mA}$; $R_L = 100 \Omega$; measured at $I_R = 3 \text{mA}$;		50	ns
diode capacitance	C_d	$V_R = 0$; $f = 1 \text{MHz}$;		2	pF

Note

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

■ Marking

Marking	K2
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