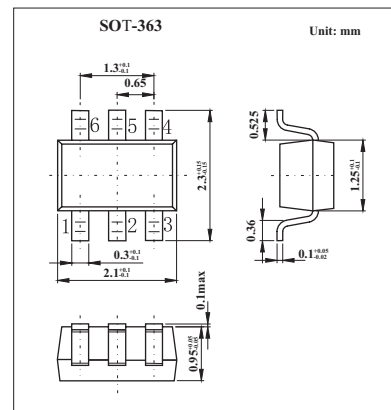


## Schottky Barrier Double Diode

## BAT74S

## ■ Features

- Low forward voltage
- Guard ring protected
- Small SMD package.

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

Parameter	Symbol	Conditions	Min	Max	Unit
Per diode					
continuous reverse voltage	$V_R$			30	V
continuous forward current	$I_F$			200	mA
repetitive peak forward current	$I_{FRM}$	$t_p \leq 1 \text{ s}; \delta \leq 0.5$		300	mA
non-repetitive peak forward current	$I_{FSM}$	$t_p < 10 \text{ ms}$		600	mA
storage temperature	$T_{stg}$		-65	+150	$^\circ\text{C}$
junction temperature	$T_j$			125	$^\circ\text{C}$
operating ambient temperature	$T_{amb}$		-65	+125	$^\circ\text{C}$
Double diode operation					
continuous reverse voltage	$V_R$			30	V
continuous reverse voltage	$V_R$	series connection		60	V
continuous forward current	$I_F$			110 <sup>(1)</sup>	mA
repetitive peak forward current	$I_{FRM}$	$t_p \leq 1 \text{ s}; \delta \leq 0.5$		200	mA
thermal resistance from junction to ambient	$R_{th\ j-a}$			416	K/W

## Note

1. If both diodes are in forward operation at the same moment, total device current is max. 110 mA.

If one diode is in reverse and the other in forward operation at the same moment, total device current is max. 200 mA.

**BAT74S**■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Conditions	Max	Unit
forward voltage	$V_F$	$I_F = 0.1 \text{ mA}$	200	mV
		$I_F = 1 \text{ mA}$	260	
		$I_F = 10 \text{ mA}$	340	
		$I_F = 30 \text{ mA}$	420	
		$I_F = 100 \text{ mA}$	750	
reverse current	$I_R$	$V_R = 25 \text{ V}$ ; note 1	2	$\mu\text{A}$
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 $I_R = 1 \text{ mA}$	5	ns
diode capacitance	$C_d$	$f = 1 \text{ MHz}$ ; $V_R = 1 \text{ V}$	10	pF

Note

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

## ■ Marking

Marking	74
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