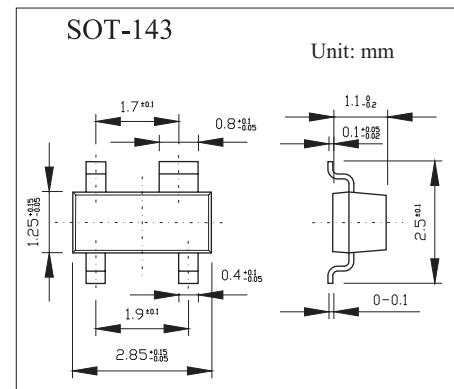


## Schottky Barrier Double Diode

## BAT74

## ■ Features

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

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

Parameter	Symbol	Test Condition	Min	Max	Unit
continuous reverse voltage	VR			30	V
		series connection		60	V
continuous forward current	IF	single diode loaded		200	mA
		double diode loaded		110 <sup>(1)</sup>	mA
repetitive peak forward current	IFRM	single diode loaded ( $t_p \leq 1\text{ s}; \delta \leq 0.5$ )		300	mA
		double diode loaded ( $t_p \leq 1\text{ s}; \delta \leq 0.5$ )		200	mA
non-repetitive peak forward current	IFSM	$t_p < 10\text{ ms}$		600	mA
total power dissipation	P <sub>tot</sub>	$T_{amb} = 25^\circ\text{C}$		230	mW
storage temperature	T <sub>stg</sub>		-65	+150	°C
junction temperature	T <sub>j</sub>			125	°C
operating ambient temperature	T <sub>amb</sub>		-65	+125	°C
thermal resistance from junction to ambient	R <sub>th j-a</sub>			500	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.

## BAT74

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

Parameter	Symbol	Test Condition	Max	Unit
forward voltage	$V_F$	$I_F = 0.1 \text{ mA}$	240	mV
		$I_F = 1 \text{ mA}$ ;note 1	320	
		$I_F = 10 \text{ mA}$	400	
		$I_F = 30 \text{ mA}$	500	
		$I_F = 100 \text{ mA}$	800	
reverse current	$I_R$	$V_R = 25 \text{ V}$ ;note 2	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

#### Notes

1. Temperature coefficient of forward voltage  $-0.6\%/K$ .
2. Pulsed test:  $t_p = 300 \mu\text{s}$ ;  $\delta = 0.02$ .

### ■ Marking

Marking	L41
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