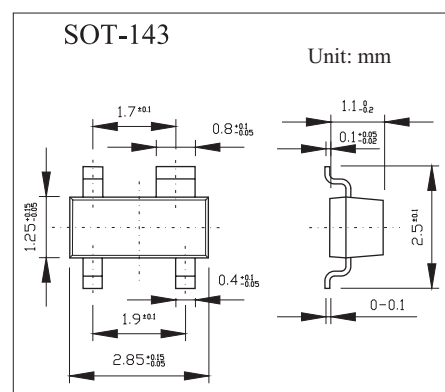


Schottky Barrier Double Diode

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	V_R			30	V
		series connection		60	V
continuous forward current	I_F	single diode loaded		200	mA
		double diode loaded		110 ⁽¹⁾	mA
repetitive peak forward current	I_{FRM}	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	I_{FSM}	$t_p < 10\text{ ms}$		600	mA
total power dissipation	P_{tot}	$T_{amb} = 25^\circ\text{C}$		230	mW
storage temperature	T_{stg}		-65	+150	$^\circ\text{C}$
junction temperature	T_j			125	$^\circ\text{C}$
operating ambient temperature	T_{amb}		-65	+125	$^\circ\text{C}$
thermal resistance from junction to ambient	$R_{th\ j-a}$			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.

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■ 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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