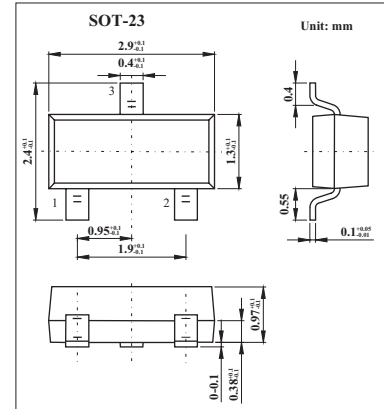
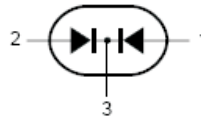


## High-Speed Double Diode

### 1PS184

#### ■ Features

- Small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 80 V
- Repetitive peak reverse voltage: max. 85 V
- Repetitive peak forward current: max. 500 mA.



#### ■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>	85	V
Continuous reverse voltage	V <sub>R</sub>	80	V
Continuous forward current (single diode loaded *) (double diode loaded *)	I <sub>F</sub>	215 125	mA
Repetitive peak forward current	I <sub>FRM</sub>	500	mA
Non-repetitive peak forward current T <sub>j</sub> =25 °C t=1 μs t=1s	I <sub>FSM</sub>	4 0.5	A
power dissipation *	P <sub>D</sub>	250	mW
Thermal resistance from junction to tie-point	R <sub>th j-tp</sub>	250	K/W
Thermal resistance from junction to ambient *	R <sub>th j-a</sub>	500	K/W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-65 to +150	°C

\* Device mounted on an FR4 printed-circuit board.

#### ■ Electrical Characteristics Ta = 25 °C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 1 mA		610		mV	
		I <sub>F</sub> = 10 mA		740		mV	
		I <sub>F</sub> = 50 mA				1.0	V
		I <sub>F</sub> = 100 mA				1.2	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 25 V			30	nA	
		V <sub>R</sub> = 80 V			0.5	μA	
		V <sub>R</sub> = 25 V; T <sub>j</sub> = 150 °C			30	μA	
		V <sub>R</sub> = 80 V; T <sub>j</sub> = 150 °C			100	μA	
Diode capacitance	C <sub>d</sub>	V <sub>R</sub> = 0 V, f = 1 MHz			1.5	pF	
Reverse recovery time	t <sub>rr</sub>	when switched from I <sub>F</sub> = 10 mA to I <sub>R</sub> = 10 mA; R <sub>L</sub> = 100 Ω; measured at I <sub>R</sub> = 1 mA			4	nS	
Forward recovery voltage	V <sub>fr</sub>	I <sub>F</sub> = 10 mA, t <sub>r</sub> = 20 ns			1.75	V	

#### ■ Marking

Marking	B3T
---------	-----