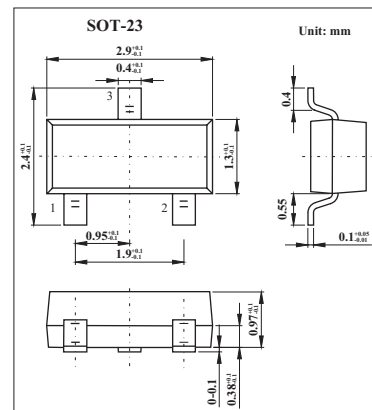
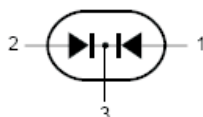


High-Speed Double Diode

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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	85	V
Continuous reverse voltage	V_R	80	V
Continuous forward current (single diode loaded *) (double diode loaded *)	I_F	215 125	mA
Repetitive peak forward current	I_{FRM}	500	mA
Non-repetitive peak forward current $T_j = 25^\circ\text{C}$ $t = 1\ \mu\text{s}$ $t = 1\text{s}$	I_{FSM}	4 0.5	A
power dissipation *	P_D	250	mW
Thermal resistance from junction to tie-point	$R_{th\ j\text{-}tp}$	250	K/W
Thermal resistance from junction to ambient *	$R_{th\ j\text{-}a}$	500	K/W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$

* Device mounted on an FR4 printed-circuit board.

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 1\text{ mA}$		610		mV
		$I_F = 10\text{ mA}$		740		mV
		$I_F = 50\text{ mA}$			1.0	V
		$I_F = 100\text{ mA}$			1.2	V
Reverse current	I_R	$V_R = 25\text{ V}$			30	nA
		$V_R = 80\text{ V}$			0.5	μA
		$V_R = 25\text{ V}; T_j = 150^\circ\text{C}$			30	μA
		$V_R = 80\text{ V}; T_j = 150^\circ\text{C}$			100	μA
Diode capacitance	C_d	$V_R = 0\text{ V}, f = 1\text{ MHz}$			1.5	pF
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 $I_R = 1\text{ mA}$			4	nS
Forward recovery voltage	V_{fr}	$I_F = 10\text{ mA}, t_r = 20\text{ ns}$			1.75	V

■ Marking

Marking	B3T
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