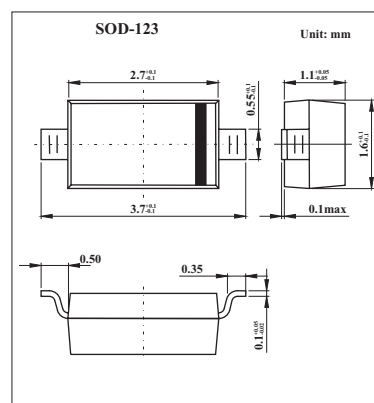


SMALL SIGNAL DIODES

1N5177W

■ Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching Time
- Low Reverse Capacitance

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse voltage	V_{RRM}	70	V
Working Peak Reverse Voltage	V_{RWM}	70	V
DC Blocking Voltage	V_R	70	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
Maximum Forward Current	I_{FM}	15	mA
Power Dissipation (Note1)	P_d	333	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	θ_{JA}	300	$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_j	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

1. Part mounted on FR-4 board with recommended pad layout.

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$I_R = 10 \mu\text{A}$	70			V
Reverse Leakage Current (Note2)	I_R	$V_R = 50 \text{ V}$			200	nA
Forward Voltage Drop (Note2)	V_F	$I_F = 1.0 \text{ mA}$			0.41	V
		$I_F = 15 \text{ mA}$			1.00	
Total Capacitance	C_T	$V_R = 0\text{V}, f = 1.0 \text{ MHz}$			2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 5.0 \text{ mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			1.0	ns

Note:

2. Short duration test pulse used to minimize self-heating effect.

■ Marking

Marking	SA
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