

SMALL SIGNAL DIODES

1N5177W

■ Features

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

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse voltage	V _{RRM}		
Working Peak Reverse Voltage	V _{RWM}	70	V
DC Blocking Voltage	V _R		
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	°C/W
Operating Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Note:

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

■ Electrical Characteristics Ta = 25°C

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	I _R = 10 μA	70			V
Reverse Leakage Current (Note2)	I _R	V _R = 50 V			200	nA
Forward Voltage Drop (Note2)	V _F	I _F = 1.0 mA			0.41	V
		I _F = 15 mA			1.00	
Total Capacitance	C _T	V _R = 0V, f = 1.0 MHz			2.0	pF
Reverse Recovery Time	t _{rr}	I _F = I _R = 5.0 mA I _{rr} = 0.1 x I _R , R _L = 100 Ω			1.0	ns

Note:

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

■ Marking

Marking	SA
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