

## 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 <sub>RRM</sub>		
Working Peak Reverse Voltage	V <sub>RWM</sub>	70	V
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	49	V
Maximum Forward Current	I <sub>FM</sub>	15	mA
Power Dissipation (Note1)	P <sub>d</sub>	333	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	θ <sub>JA</sub>	300	°C/W
Operating Temperature Range	T <sub>j</sub>	-55 to+125	°C
Storage Temperature Range	T <sub>STG</sub>	-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 <sub>(BR)R</sub>	I <sub>R</sub> = 10 μA	70			V
Reverse Leakage Current (Note2)	I <sub>R</sub>	V <sub>R</sub> = 50 V			200	nA
Forward Voltage Drop (Note2)	V <sub>F</sub>	I <sub>F</sub> = 1.0 mA			0.41	V
		I <sub>F</sub> = 15 mA			1.00	
Total Capacitance	C <sub>T</sub>	V <sub>R</sub> = 0V, f = 1.0 MHz			2.0	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 5.0 mA I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100 Ω			1.0	ns

Note:

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

## ■ Marking

Marking	SA
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