

# Schottky Barrier Diode

## Features

1. High reliability
2. Low reverse current and low forward voltage

## Applications

Low current rectification and high speed switching

## Construction

Silicon epitaxial planar



## Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage		1N60	$V_{RRM}$	40	V
		1N60P	$V_{RRM}$	45	V
Peak forward surge current	$t_p \leq 1 \text{ s}$	1N60	$I_{FSM}$	150	mA
		1N60P	$I_{FSM}$	500	mA
Forward continuous current	$T_a=25^{\circ}\text{C}$	1N60	$I_F$	30	mA
		1N60P	$I_F$	50	mA
Storage temperature range			$T_{stg}$	-65~+125	$^{\circ}\text{C}$

## Maximum Thermal Resistance

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

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mm × 50mm × 1.6mm	$R_{thJA}$	250	K/W

## Electrical Characteristics

T<sub>j</sub>=25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> =1mA	1N60	V <sub>F</sub>		0.32	0.5	V
		1N60P	V <sub>F</sub>		0.24	0.5	V
	I <sub>F</sub> =30mA	1N60	V <sub>F</sub>		0.65	1.0	V
	I <sub>F</sub> =200mA	1N60P	V <sub>F</sub>		0.65	1.0	V
Reverse current	V <sub>R</sub> =15V	1N60	I <sub>R</sub>		0.1	0.5	μ A
		1N60P	I <sub>R</sub>		0.5	1.0	μ A
Junction capacitance	V <sub>R</sub> =1V, f=1MHz	1N60	C <sub>J</sub>		2.0		pF
	V <sub>R</sub> =10V, f=1MHz	1N60P	C <sub>J</sub>		6.0		pF
Reverse recovery time	I <sub>F</sub> =I <sub>R</sub> =1mA I <sub>tr</sub> =1mA R <sub>C</sub> =100		t <sub>rr</sub>			1.0	ns

## Dimensions in mm

