

# New Jersey Semi-Conductor Products, Inc.

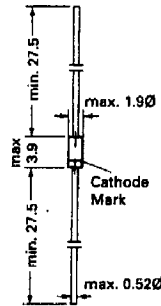
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## Silicon Epitaxial Planar Diode Switches

for electronic band-switching in radio and TV tuners in the frequency range of 50 ... 1000 MHz. The dynamic forward resistance is constant and very small over a wide range of frequency and forward current. The reverse capacitance is also small and largely independent of the reverse voltage.

These diodes are delivered taped.  
 Details see "Taping".



Glass case JEDEC DO-35

Weight approx. 0.13 g  
 Dimensions in mm

## Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

	Symbol	Value	Unit
Reverse Voltage	$V_R$	35	V
Forward Current at $T_{amb} = 25^\circ\text{C}$	$I_F$	100	mA
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-55 to + 150	$^\circ\text{C}$

## Characteristics at $T_{amb} = 25^\circ\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$	$V_F$	-	-	1	V
Leakage Current at $V_R = 20\text{ V}$ at $V_R = 15\text{ V}$ , $T_{amb} = 60^\circ\text{C}$	$I_R$ $I_R$	- -	- -	50 1	nA $\mu\text{A}$
Dynamic Forward Resistance at $f = 50\text{ to }1000\text{ MHz}$ , $I_F = 10\text{ mA}$	$r_f$ $r_f$	- -	0.7 0.4	1 0.5	$\Omega$ $\Omega$
Relative Variation of Dynamic Forward Resistance with the Variation of Forward Current in the Range of $I_F = 2\text{ to }40\text{ mA}$	$\frac{\Delta r_f \cdot 100}{r_f \cdot \Delta I_F}$	-	5	-	%/mA
Capacitance at $V_R = 3\text{ V}$ , $f = 1\text{ MHz}$	$C_{tot}$	-	-	1.8	pF
Relative Variation of Capacitance with the Variation of Reverse Voltage in the Range of $V_R = 7\text{ to }20\text{ V}$ , $f = 100\text{ MHz}$	$\frac{\Delta C_{tot} \cdot 100}{C_{tot} \cdot \Delta V_R}$	-	1	-	%/V
Series Inductance across Case	$L_s$	-	2.5	-	nH