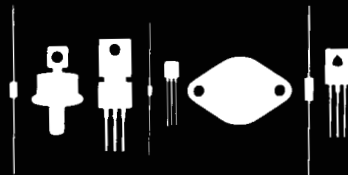


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1N4446 THRU 1N4449

SILICON SWITCHING DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N4446 series types are very high speed Silicon Switching Diodes designed for computer and general purpose applications.

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

	<u>SYMBOL</u>		<u>UNIT</u>
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Peak Working Reverse Voltage	V_{RWM}	75	V
Average Forward Current	I_O	150	mA
Forward Steady-State Current	I_F	200	mA
Peak Forward Surge Current (1.0 μs pulse)	I_{FSM}	2000	mA
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +200	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	1N4446		1N4447		1N4448		1N4449		<u>UNIT</u>
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
BV_R	$I_R=5\mu\text{A}$	75		75		75		75		V
BV_R	$I_R=100\mu\text{A}$	100		100		100		100		V
I_R	$V_R=20\text{V}$		25		25		25		25	nA
I_R	$V_R=20\text{V}, T_A=100^{\circ}\text{C}$		-		-		3.0		3.0	μA
I_R	$V_R=20\text{V}, T_A=150^{\circ}\text{C}$		50		50		50		50	μA
V_F	$I_F=5.0\text{mA}$	-	-	-	-	0.62	0.72	0.63	0.73	V
V_F	$I_F=20\text{mA}$		1.0		1.0		-		-	V
V_F	$I_F=30\text{mA}$		-		-		-		1.0	V
V_F	$I_F=100\text{mA}$		-		-		1.0		-	V
C_T	$V_R=0, f=1.0\text{ MHz}$		4.0		2.0		4.0		2.0	pF
t_{rr}	$V_R=6.0\text{V}, I_F=10\text{mA},$ $I_{rr}=1.0\text{mA}, R_L=100\Omega$		4.0		4.0		4.0		4.0	nS
$V_{FM}(\text{REC})$	$I_F=50\text{mA}, R_L=50\Omega$		-		-		2.5		2.5	V