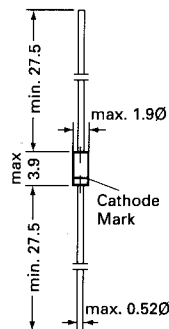


# 1N 4448 SILICON EPITAXIAL PLANAR DIODE

**Silicon Epitaxial Planar Diode**  
fast switching diode.

This diode is also available in MiniMELF case with type designation LL4448.



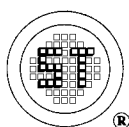
Glass case JEDEC DO-35

Dimensions in mm

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

	Symbol	Value	Unit
Reverse Voltage	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb} = 25\text{ }^\circ\text{C}$ and $f \geq 50\text{ Hz}$	$I_o$	150 <sup>1)</sup>	mA
Surge Forward Current at $t < 1\text{ s}$ and $T_j = 25\text{ }^\circ\text{C}$	$I_{FSM}$	500	mA
Power Dissipation at $T_{amb} = 25\text{ }^\circ\text{C}$	$P_{tot}$	500 <sup>1)</sup>	mW
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-65 to + 200	$^\circ\text{C}$

<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature



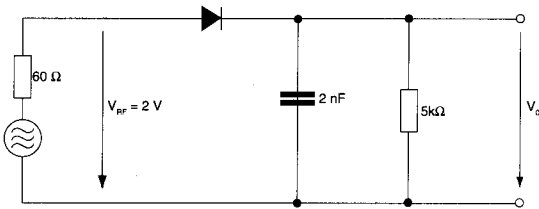
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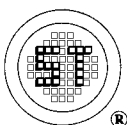
# 1N 4448 SILICON EPITAXIAL PLANAR DIODE

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

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 5\text{ mA}$ at $I_F = 100\text{ mA}$	$V_F$ $V_F$	0.62 -	- -	0.72 1	V V
Leakage Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}, T_j = 150\text{ }^\circ\text{C}$	$I_R$ $I_R$ $I_R$	- - -	- - -	25 5 50	nA $\mu\text{A}$ $\mu\text{A}$
Reverse Breakdown Voltage tested with $100\text{ }\mu\text{A}$ Pulses	$V_{(BR)R}$	100	-	-	V
Capacitance at $V_F = V_R = 0$	$C_{tot}$	-	-	4	pF
Reverse Recovery Time from $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $V_R = 6\text{ V}$ , $R_L = 100\text{ }\Omega$ ,	$t_{rr}$	-	-	4	ns
Thermal Resistance Junction to Ambient Air	$R_{thA}$	-	-	0.35 <sup>1)</sup>	K/mW
Rectification Efficiency at $f = 100\text{ MHz}$ , $V_{RF} = 2\text{ V}$	$\eta_V$	0.45	-	-	ns
1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature					



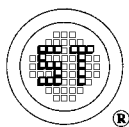
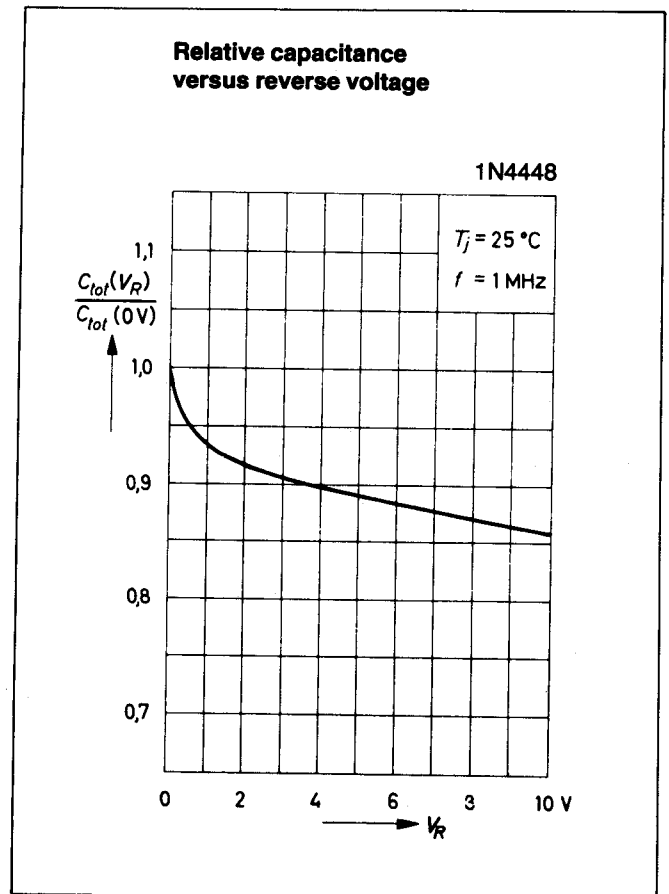
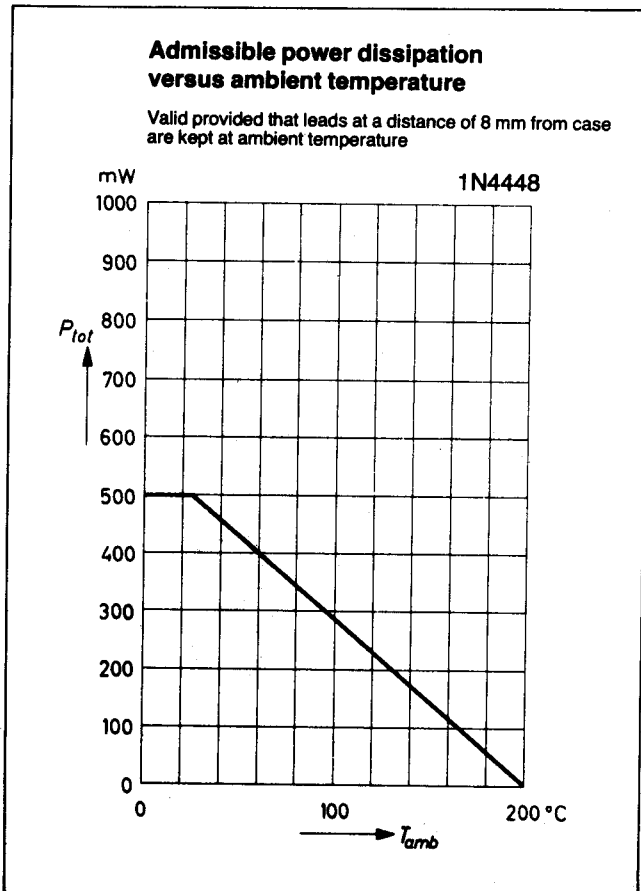
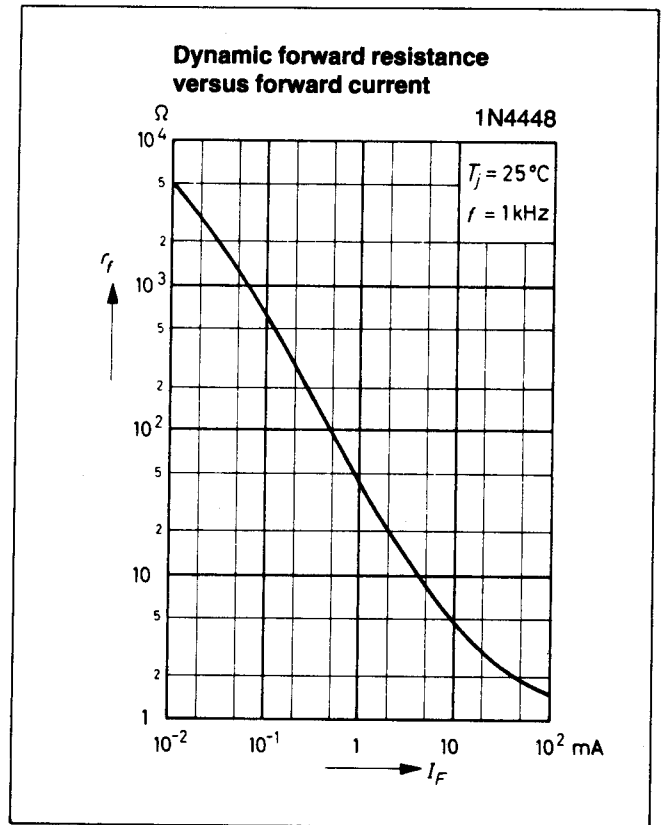
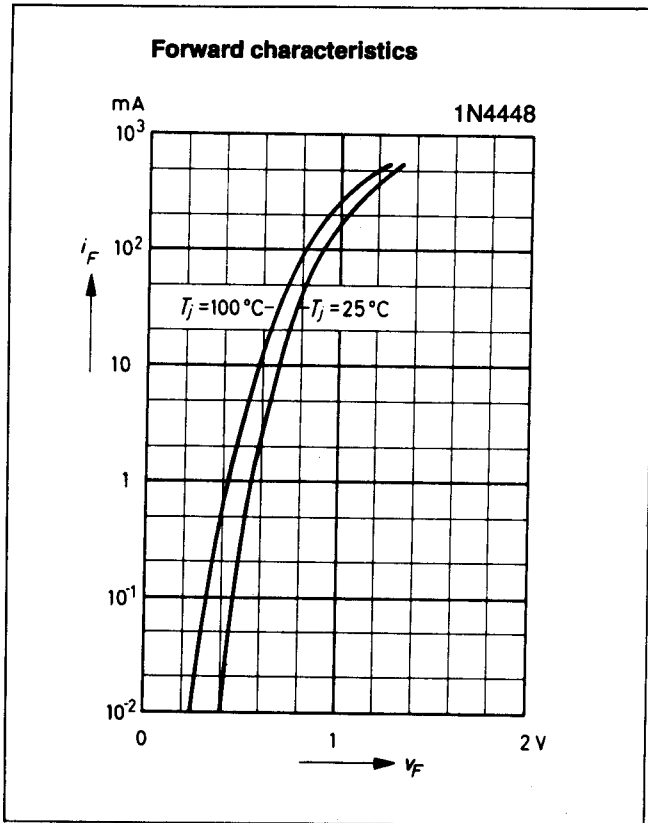
Rectification Efficiency Measurement Circuit



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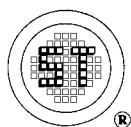
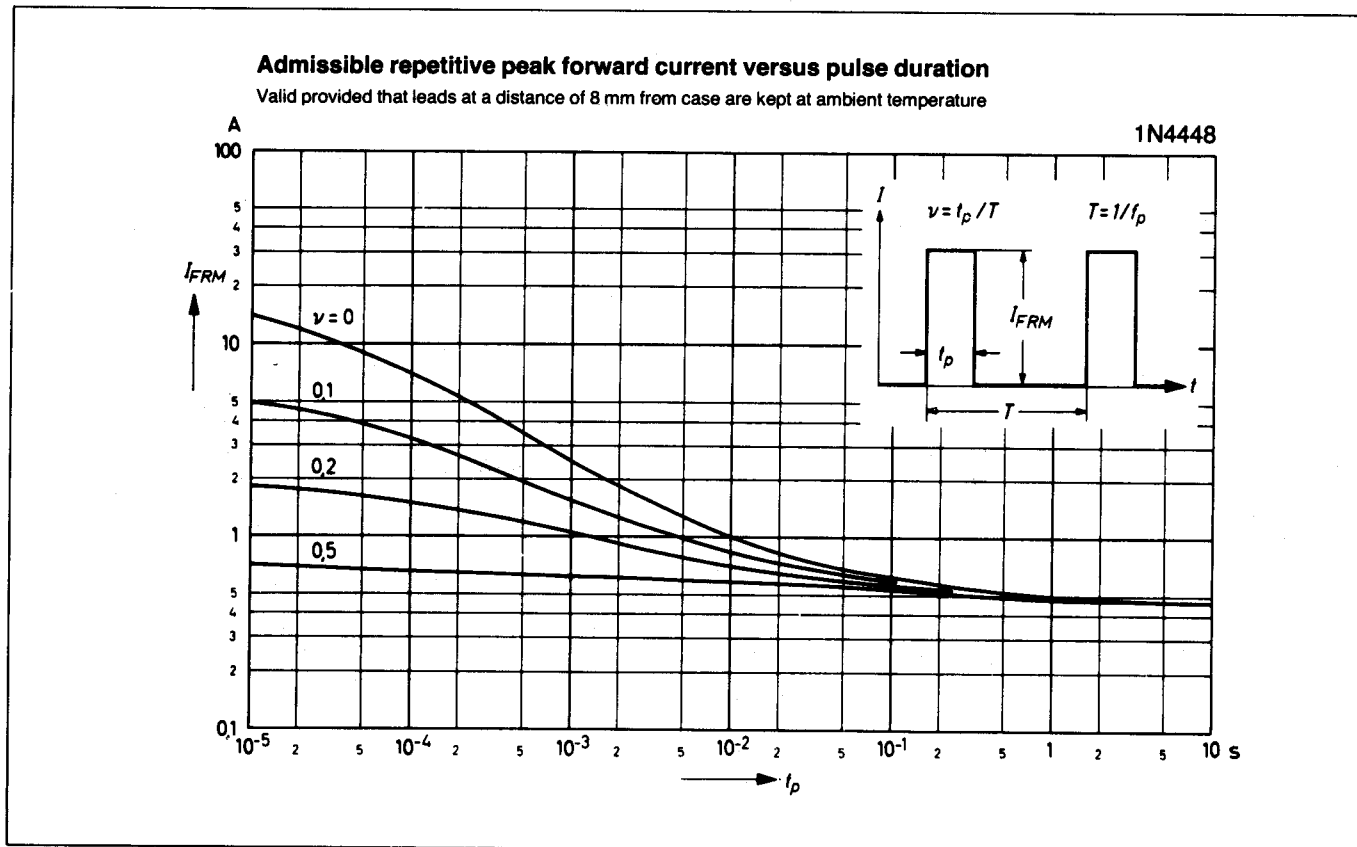
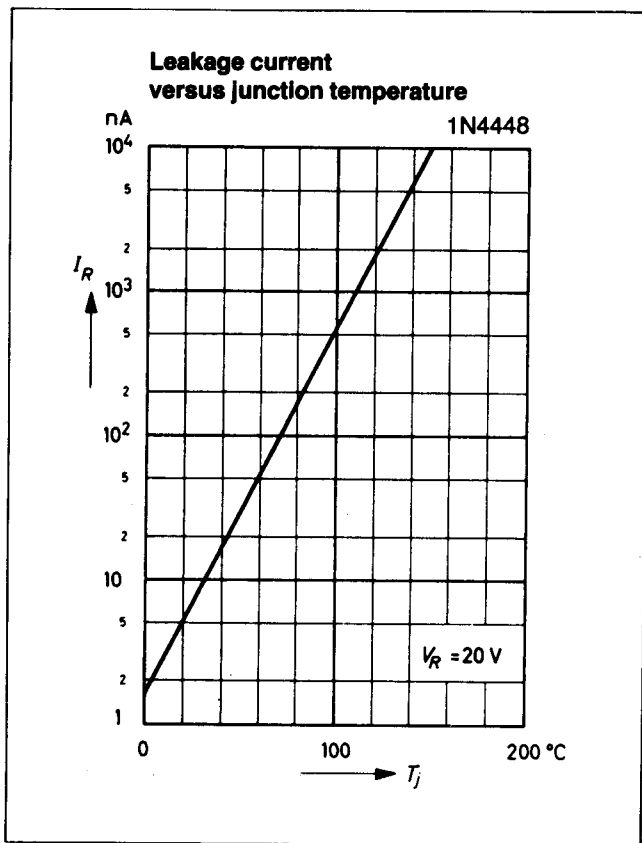
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