CHENYI ELECTRONICS

1N4448

SMALL SIGNAL SWITCHING DIODE

FEATURES

. Silicon epitaxial planar diode

. Fast swithching diodes

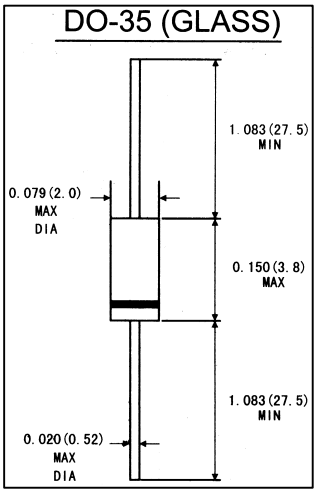
. 500mW power dissipation

. The diode is also available in the Mini-MELF case with the type designation LL4448

MECHANICAL DATA

. **Case**: MinMelf glass case(SOD- 80)

. **Weight**: Approx. 0.05gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified)

	Symbol	Value	Units
Reverse voltage	V_R	75	Volts
Peak reverse voltage	V_{RM}	100	Volts
Average rectified current, Half wave rectification with Resistive load at T_A=25℃ and F≥50Hz	I_{AV}	150[1]	mA
Surge forward current at t<1S and T_J=25℃	I_{FSM}	500	mW
Power dissipation at T_A=25℃	Ptot	500[1]	mW
Junction temperature	T_J	175	℃
Storage temperature range	T_{STG}	-65 to + 175	℃
1)Valid provided that at a distance of 8mm from case are kept at ambient temperature(DO-35)			

ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified)

	Symbols	Min.	Typ.	Max.	Units
Forward voltage at I_F=5mA	V_F	0.62		0.72	V
at IF=10mA	V_F			1	V
Leakage current at V_R=20V	I_R			25	nA
at V_R=75V	I_R			5	μA
at V_R=20V, T_J=150℃	I_R			50	μA
Junction capacitance at V_R=V_F=0V	C_J			4	pF
Reverse breakdown voltage tested with 100 A μuse	$V_{(BR)R}$	100			V
Reverse recoμry time from IF=.μ)mA to IR=1mA, V_R=6V, R_L=100 Ω	t_{rr}			4	ns
Thermal resistance junction to ambient	$R\theta_{JA}$			350[1]	350[1]
Rectification efficience at f=100MHz,V_{RF}=2V	η	0.45			
1)Valid provided that leads at a distance of 8mm from case are kept at ambient temperature(DO-35)					

RATINGS AND CHATACTERISTIC CURVES LL4448

FLG.1-FORWARD CHARACTERISTICS

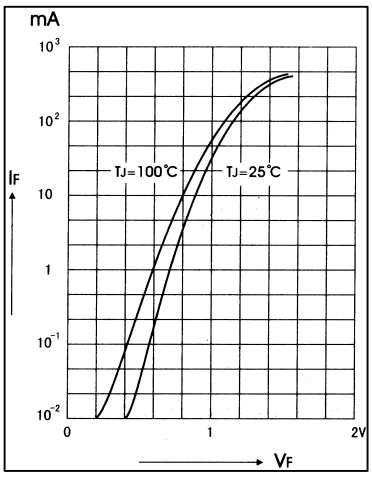


FIG.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

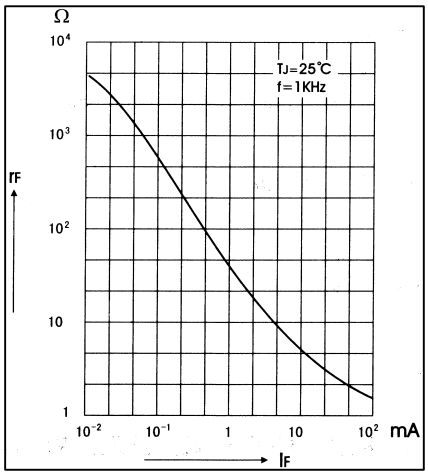


FIG.3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

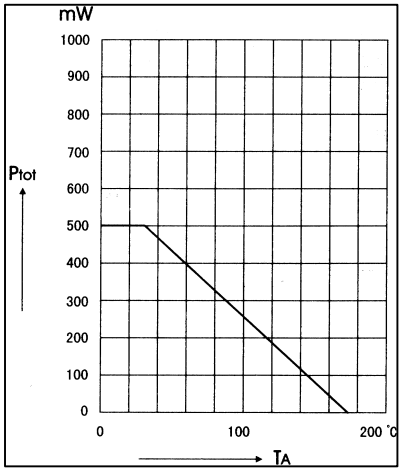


FIG.4-RELATIVE CAPACITANCE VERSUS VOLTAGE

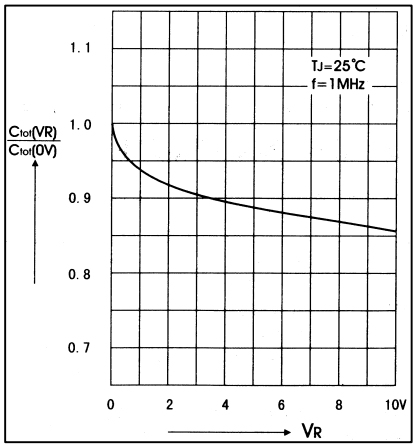


FIG.5-RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

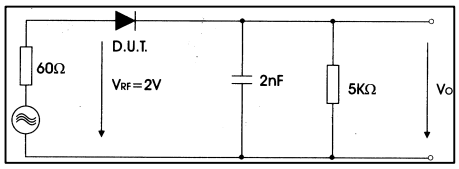


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

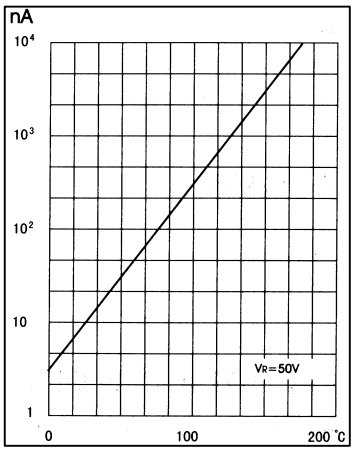


FIG.7-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION