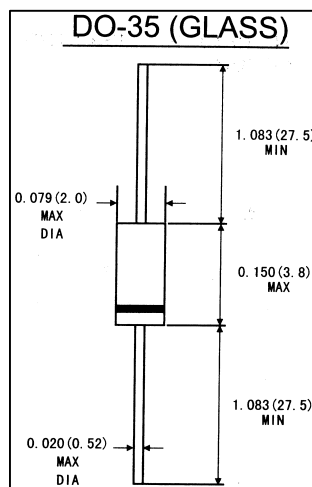


FEATURES

- Silicon epitaxial planar diode
- Fast swithching diodes
- 500mW power dissipation
- The diode is also available in the Mini-MELF case with the type designation LL4151

MECHANICAL DATA

- **Case:** DO-35 glass case
- **Polarity:** Color brand denotes cathode end
- **Weight:** Approx. 0.13gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

	Symbol	Value	Units
Reverse voltage	V_R	50	Volts
Peak reverse voltage	V_{RM}	75	Volts
Average rectified current, Half wave rectification with Resistive load at $T_A=25^\circ\text{C}$ and $F \geq 50\text{Hz}$	I_{AV}	150 ¹⁾	mA
Surge forward current at $t < 1\text{S}$ and $T_J=25^\circ\text{C}$	I_{FSM}	500	Ma
Power dissipation at $T_A=25^\circ\text{C}$	P_{tot}	500 ¹⁾	Mw
Junction temperature	T_J	175	°C
Storage temperature range	T_{STG}	-65 to + 175	°C

1)Valid provided that at a distance of 8mm from case are kept at ambient temperature(DO-35)

ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

	Symbols	Min.	Typ.	Max.	Units
Forward voltage	V_F			1	Volts
Leakage current at $V_R=50\text{V}$	I_R			50	nA
at $V_R=20\text{V}$, $T_J=150^\circ\text{C}$	I_R			50	μA
Junction capacitance at $V_R=V_F=0\text{V}$	C_J	75		2	pF
Reverse breakdown voltage tested with 5 μA pulse	$V_{(BR)R}$				
Reverse recovery time from $I_F=10\text{mA}$ to $I_R=10\text{mA}$ to $I_R=1\text{mA}$, from $I_F=10\text{mA}$ to $I_R=1\text{mA}$ to $I_R=1\text{mA}$, $V_R=6\text{V}$, $R_L=100\ \Omega$	t_{rr} t_{rr}			4 4.000	ns ns
Thermal resistance junction to ambient	$R_{\theta JA}$			350 ¹⁾	K/W
Rectification efficeint at $f=100\text{MHz}$, $V_{RF}=2\text{V}$	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 1N4151

FLG.1-FORWARD CHARACTERISTICS

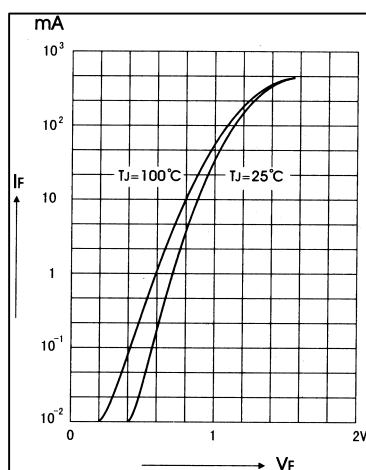


FIG.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

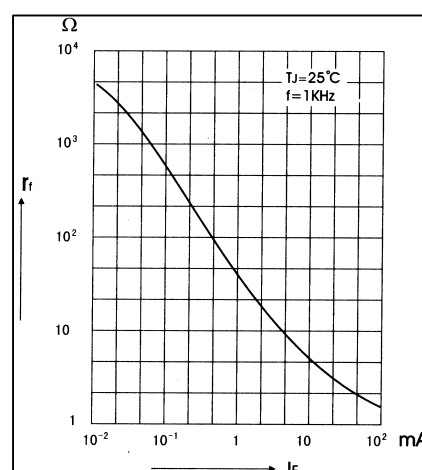


FIG.3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

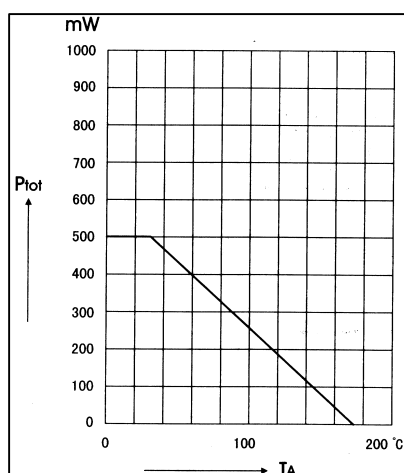


FIG.4-RELATIVE CAPACITANCE VERSUS VOLTAGE

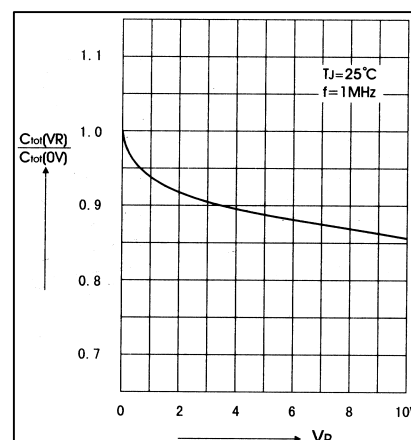


FIG.5-RECTIFICATION EFFICIENCY MEASUREMENT

CIRCUIT

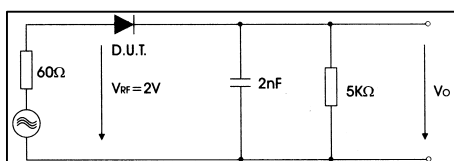


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION

TEMPERATURE

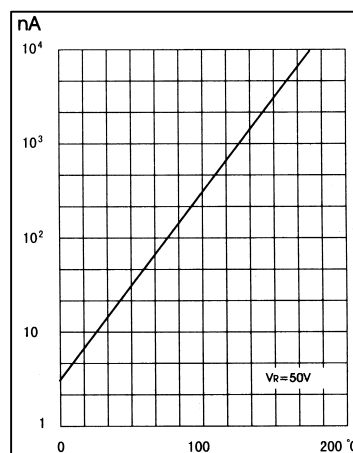


FIG.7-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

