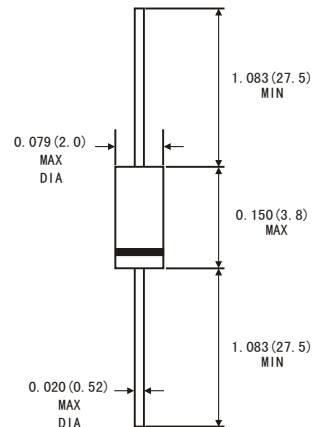


FEATURES

- Silicon epitaxial planar diode
- Fast switching diode
- 500mW power dissipation
- This diode is also available in the MiniMelf case with the type designation LL4151



DO-35 (GLASS)



MECHANICAL DATA

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbol	Value	Units
DC Blocking Voltage	V_R	50	Volts
Non-Repetitive 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
Non-Repetitive Peak Forward Surge Current @ $t=1.0\text{s}$	I_{FSM}	500	mA
Power dissipation at $T_A=25^\circ\text{C}$	P_{tot}	500 ¹⁾	mW
Junction temperature	T_J	200	°C
Storage temperature range	T_{STG}	-65 to +200	°C

1)Valid provided that leads 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)

	Symbol	Min.	Typ.	Max	Units
Forward voltage at $I_F=50\text{mA}$	V_F			1	V
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			2	pF
Reverse breakdown voltage tested with 5μA pulse	$V_{(BR)R}$	75			V
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 $I_R=1\text{mA}$ $V_R=6\text{V}$, $R_L=100\Omega$	t_{rr}			4	ns
Thermal resistance junction to ambient	$R_{\theta JA}$			350 ¹⁾	K/W
Rectification efficiency 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 CHARACTERISTIC CURVES 1N4151

FIG 1-FORWARD CHARACTERISTICS

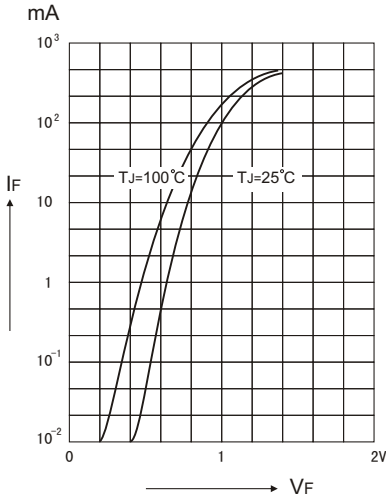


FIG 2: DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

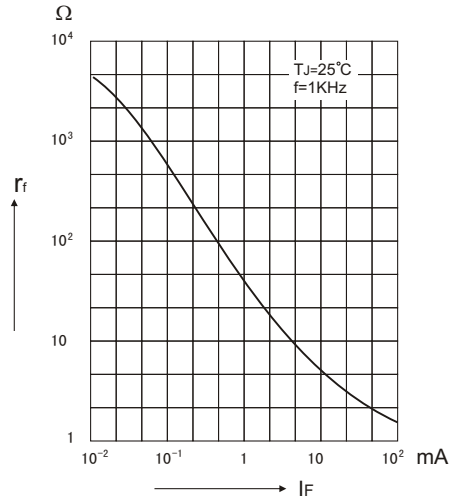


FIG 3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

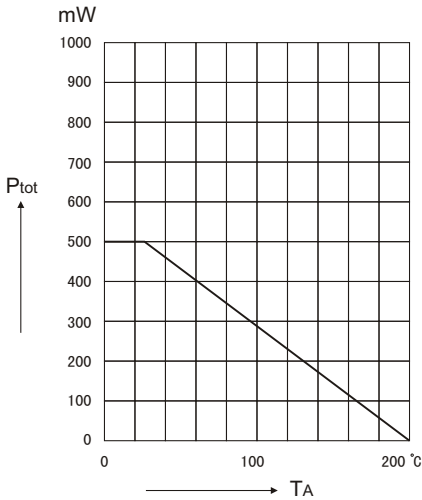
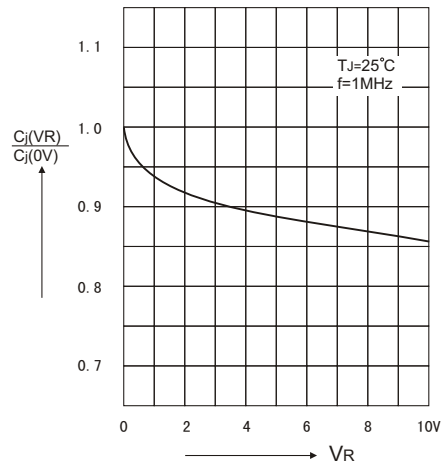


FIG. 4-RELATIVE CAPACITANCE VERSUS VOLTAGE



RATINGS AND CHARACTERISTIC CURVES 1N4151

FIG.5 RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

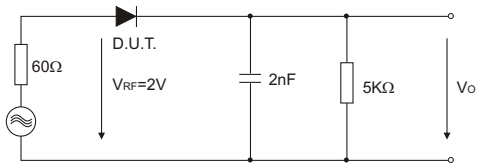


FIG 6: LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

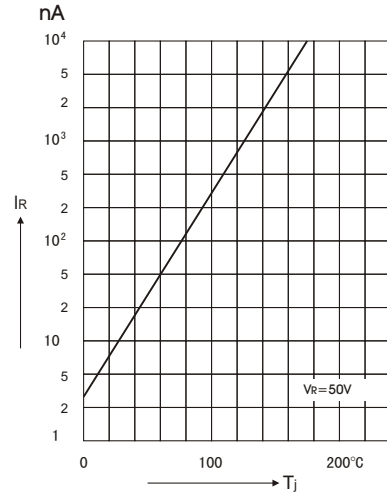


FIG 7: ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

