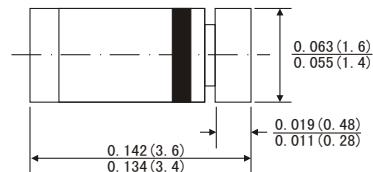


FEATURES

- Silicon epitaxial planar diode
- Fast switching diode
- 500mW power dissipation
- This diode is also available in the DO-35 case with the type designation 1N4151

MiniMelf



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°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°C and f ≥50Hz	I _{AV}	150	mA
Non-Repetitive Peak Forward Surge Current @t=1.0s	I _{FSM}	500	mA
Power dissipation at T _A =25°C	P _{tot}	500	mW
Junction temperature	T _J	175	°C
Storage temperature range	T _{STG}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS

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

	Symbol	Min.	Typ.	Max	Units
Forward voltage at I _F =50mA	V _F			1	V
Leakage current at V _R =50V	I _R			50	nA
at V _R =20V, T _J =150°C	I _R			50	μA
Junction capacitance at V _R =V _F =0V	C _J			2	pF
Reverse breakdown voltage tested with 5μA	V _{(BR)R}	75			V
Reverse recovery time from I _F =10mA to I _R =10mA to I _R =1mA, from I _F =10mA to I _R =1mA V _R =6V, R _L =100Ω	t _{rr} t _r			4 2	ns
Thermal resistance junction to ambient	R _{θJA}			500	K/W
Rectification efficiency at f=100MHz, V _{RF} =2V	η	0.45			

RATINGS AND CHARACTERISTIC CURVES LL4151

FIG 1-FORWARD CHARACTERISTICS

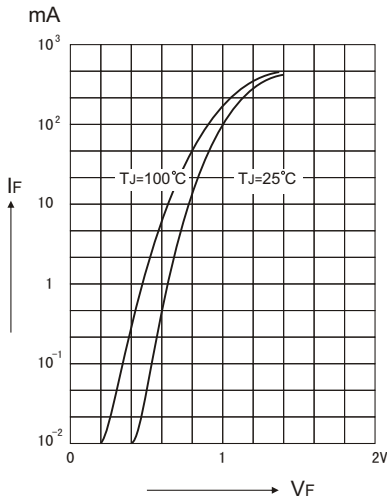


FIG 2: DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

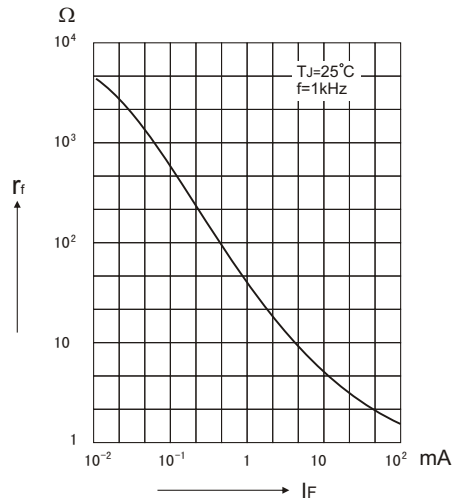


FIG 3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

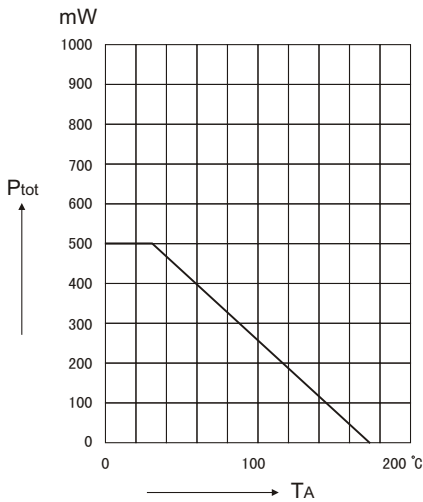
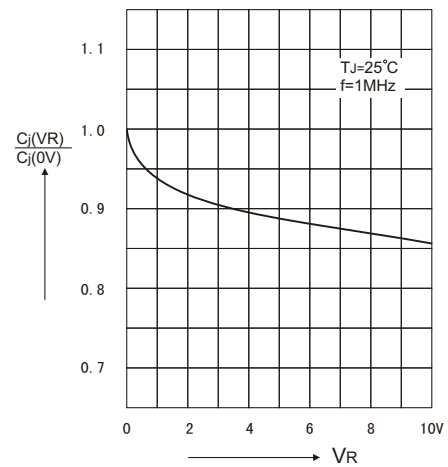


FIG. 4-RELATIVE CAPACITANCE VERSUS VOLTAGE



RATINGS AND CHARACTERISTIC CURVES LL4151

FIG.5 RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

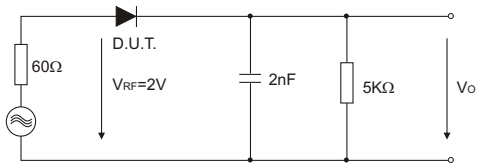


FIG 6: LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

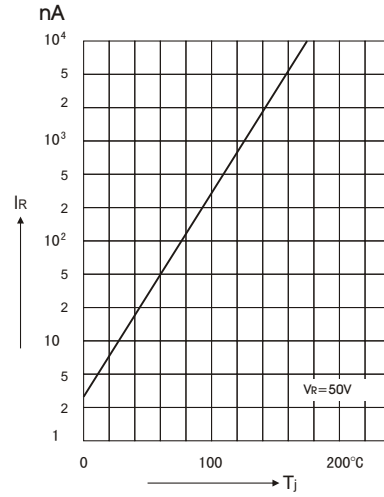


FIG 7: ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

