

FAST SWITCHING DIODES

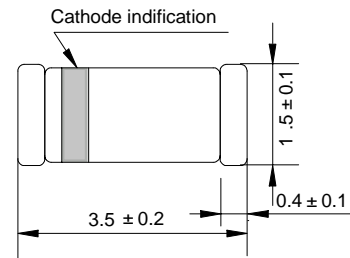
FEATURES

- Silicon epitaxial diode
- 500mW power dissipation
- High speed switching diode

MECHANICAL DATA

- Polarity: Color band denotes cathode
- Case: LL-34 glass case
- Weight: Approx 0.031 grams

LL4148



LL-34(SOD-80) Dimensions in millimeters

Absolute Maximum Ratings (TA=25°C unless otherwise noted)

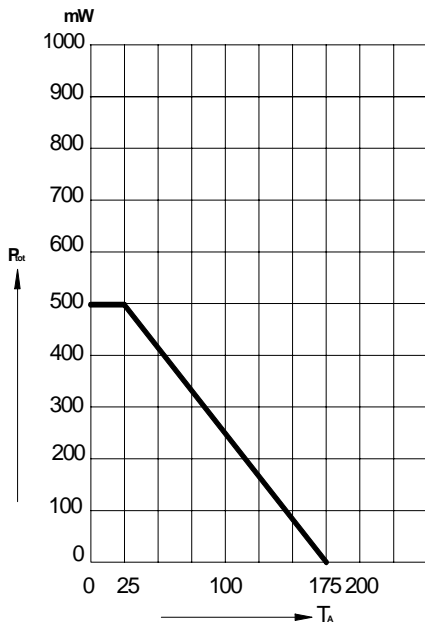
Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	75	v
Peak reverse voltage	$V_{RM}$	100	v
Average Rectified Current	$I_O$	150	mA
Non-repetitive Peak Forward Current	$I_{FSM}$	500 <sup>1)</sup>	mA
Power dissipation at $T_{amb}=25^\circ C$	$P_{tot}$	500	mW
Junction temperature	$T_J$	175	°C
Storage temperature range	$T_{STG}$	-55-175	°C

1) Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS (Tamb=25 °C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward voltage @ $I_F=10mA$	$V_F$			1.0	v
Leakage current	at $V_R=20V$	$I_R$		25	nA
	at $V_R=75V$	$I_R$		5	uA
	at $V_R=20V$ $T_J=150^\circ C$	$I_R$		50	uA
Capacitance at $V_F=V_R=0V$	$C_{tot}$			4	pF
Voltage rise when switching on tested with 50mA pulses $t_p=0,1\mu S$ , rise time < 30ns, $f_p=5$ to 100KHz	$V_{fr}$			2.5	V
Reverse recovery time from $I_F=10mA$ $V_R=6V, R_L=100$ , at $I_R=1mA$	$t_{rr}$			4.0	nS
Thermal resistance junction to ambient	$R_{JA}$			350	K/W
Rectification efficiency at 100MHz, $V_{RF}=2V$	$\eta_V$	0.45			

**LL4148 Typical Characteristics**



AMBIENT TEMPERATURE

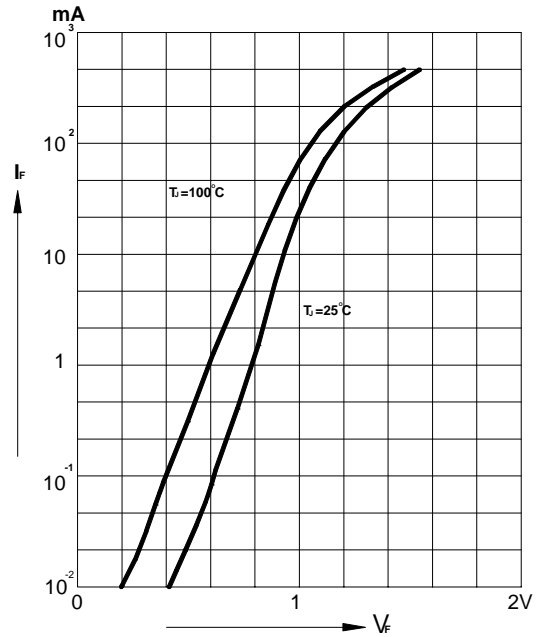


FIG.2- FORWARD CHARACTERISTICS

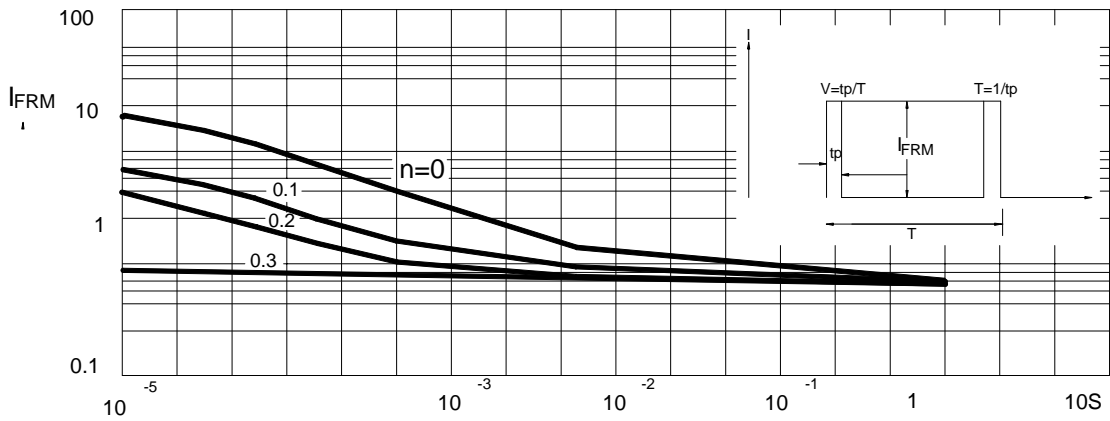


FIG.3-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION