

FAST SWITCHING DIODES
FEATURES

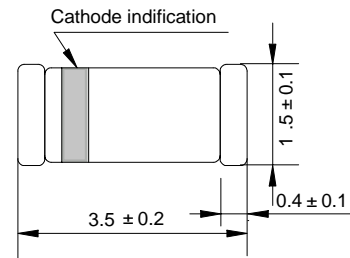
Silicon epitaxial diode
500mW power dissipation
High speed switching diode

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)

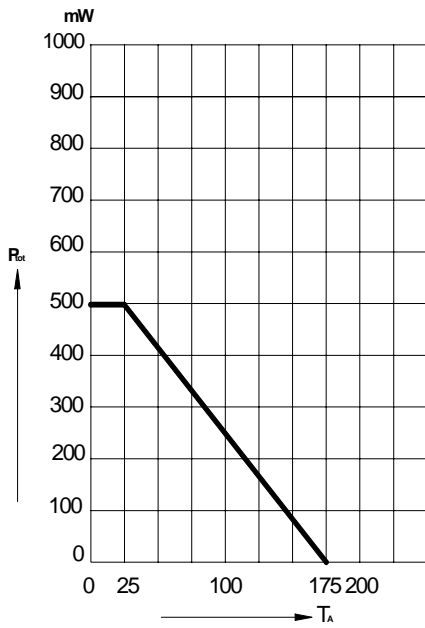
Parameter	Symbol	Value	Unit
Reverse voltage	V_R	75	v
Peak reverse voltage	V_{RM}	100	v
Average Rectified Current	I_O	150	mA
Non-repetitive Peak Forward Current	I_{FSM}	500 ¹⁾	mA
Power dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	500	mW
Junction temperature	T_J	175	°C
Storage temperature range	T_{STG}	-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 @ $I_F=10\text{mA}$	V_F			1.0	v
Leakage current	I_R			25	nA
	I_R			5	uA
	I_R			50	uA
Capacitance at $V_F=V_R=0\text{V}$	C_{tot}			4	pF
Voltage rise when switching on tested with 50mA pulses $t_p=0.1\mu\text{s}$, rise time < 30ns, $f_p=5$ to 100KHz	V_{fr}			2.5	V
Reverse recovery time from $I_F=10\text{mA}$ $V_R=6\text{V}$, $R_L=100\Omega$, at $I_R=1\text{mA}$	t_{rr}			4.0	nS
Thermal resistance junction to ambient	R_{JA}			350	K/W
Rectification efficiency at 100MHz, $V_{RF}=2\text{V}$	η_V	0.45			

LL4148 Typical Characteristics



AMBIENT TEMPERATURE

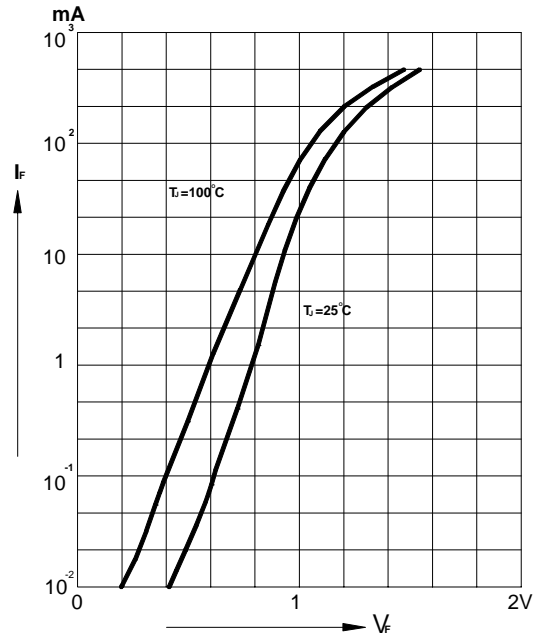


FIG.2- FORWARD CHARACTERISTICS

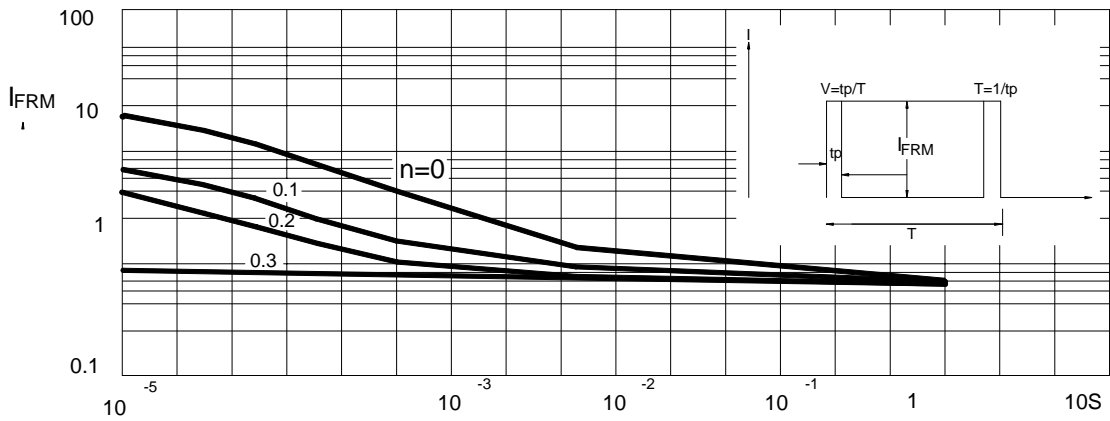


FIG.3-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION