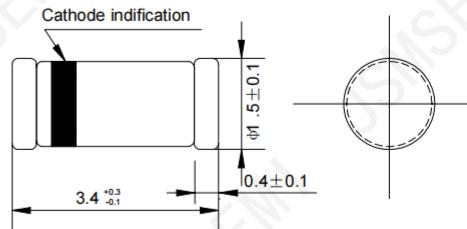


FEATURES

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

MECHANICAL DATA

- ◆ Polarity: Color band denotes cathode
- ◆ Weight: Approx 0.031 grams



SOD-80C

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

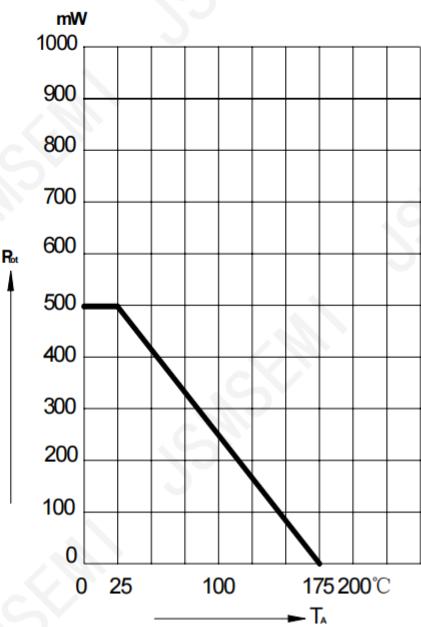
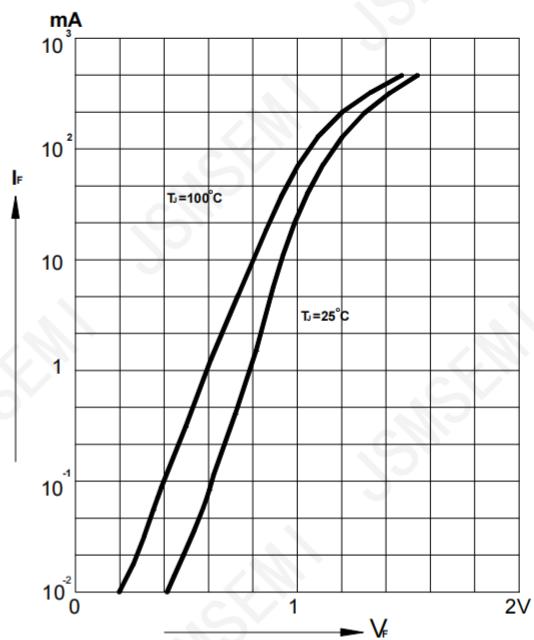
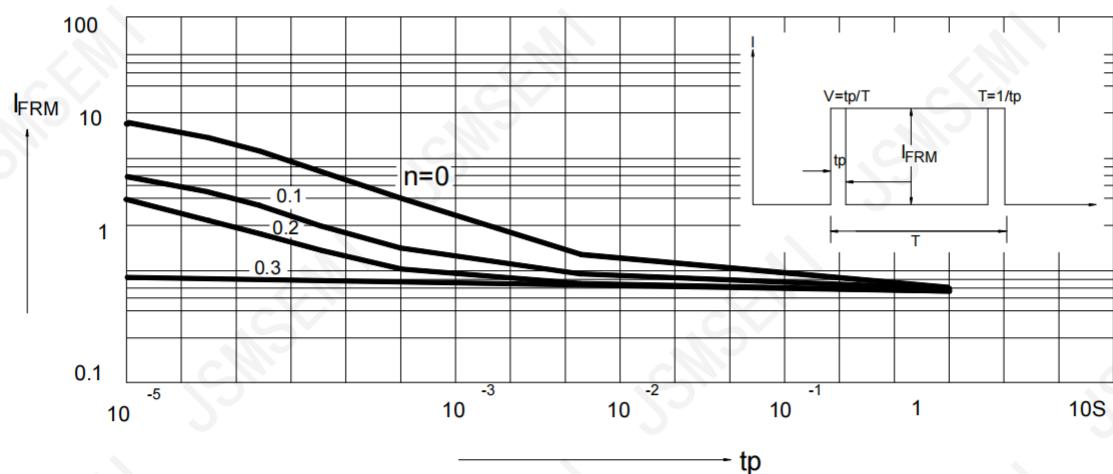
		LL4148	UNITS
Reverse voltage	V_R	75.0	V
Peak reverse voltage	V_{RM}	100.0	V
Average forward rectified current Half wave rectification with resistive load at $t_{amb}=25^\circ C$ and $f=50Hz$	I_o	150.0	mA
Forward surge current at $t=1S$ and $T_j=25^\circ C$	I_{FSM}	500.00	mA
Power dissipation at $t_{amb}=25^\circ C$	P_{tot}	500.0 ¹⁾	mW
Junction temperature	T_j	175.0	°C
Storage temperature range	T_{STG}	-55---+175	°C

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

ELECTRICAL CHARACTERISTICS

		MIN	MAX	UNITS
Forward voltage @ $I_F=10mA$	V_F	-	1.0	V
Leakage current at $V_R=20V$	I_R	-	25.0	nA
at $V_R=75V$	I_R	-	5.0	μA
at $V_R=20V$ $T_j=150^\circ C$	I_R	-	50.0	μA
Capacitance at $V_F=V_R=0V$	C_{tot}	-	4.0	pF
Voltage rise when switching on tested with 50mA pulses $tp=0.1S$, rise time 30ns, $fp=5$ to 100KHz	V_{fr}	-	2.5	V
Reverse recovery time from $I_F=10mA$	t_{rr}	-	4.0	ns
$V_R=6V, R_L=100$, at $I_R=1mA$				
Thermal resistance junction to ambient	$R_{\theta JA}$		350.0 ¹⁾	K/W
Rectification efficiency at 100MHz, $V_{RF}=2V$	V	0.45	-	-

1) Valid provided that electrodes are kept at ambient temperature

FIG.1 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

FIG.2- FORWARD CHARACTERISTICS

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


Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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