

SMALL SIGNAL SWITCHING DIODE

REVERSE VOLTAGE: 75 V

CURRENT: 0.15 A

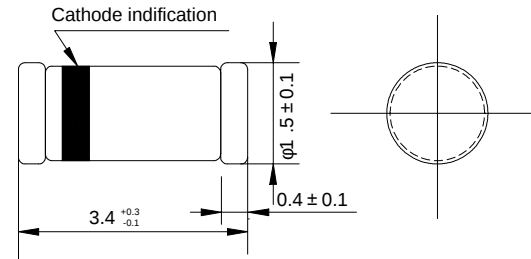
FEATURES

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

MECHANICAL DATA

- ◇ Case: MINI-MELF glass case
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: Approx 0.031 grams

MINI-MELF



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

MAXIMUM RATINGS

		LL4448	UNITS
Reverse voltage	V_R	75	V
Peak reverse voltage	V_{RM}	100	V
Average forward rectified current Half wave rectification with resistive load at $V_R=0V$	I_o	150	mA
Forward surge current at $t_p \leq 1\mu s$	I_{FSM}	2.0	A
Power dissipation at $t_{amb}=25^\circ C$	P_{tot}	500 ¹⁾	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

		MIN	TYP	MAX	UNITS
Forward voltage @ $I_F=5.0mA$ @ $I_F=100mA$	V_F	0.62 -	- 0.93	0.72 1.0	V
Leakage current at $V_R=20V$ at $V_R=75V$ at $V_R=20V$ $T_J=150^\circ C$	I_R I_R I_R	- - -	- - -	25.0 5.0 50.0	nA μA μA
Capacitance at $V_R=0V, f=1MHz, V_{HF}=50mV$	C_{tot}	-	-	4.0	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 $I_F=10mA$ $V_R=6V, R_L=100\Omega$, at $I_R=1mA$	t_{rr}	-	-	4.0	ns
Thermal resistance junction to ambient	$R_{\theta JA}$			500 ¹⁾	K/W
Rectification efficiency at 100MHz, $V_{RF}=2V$	ηV	0.45	-	-	-

1) Valid provided that electrodes are kept at ambient temperature

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FIG.1 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

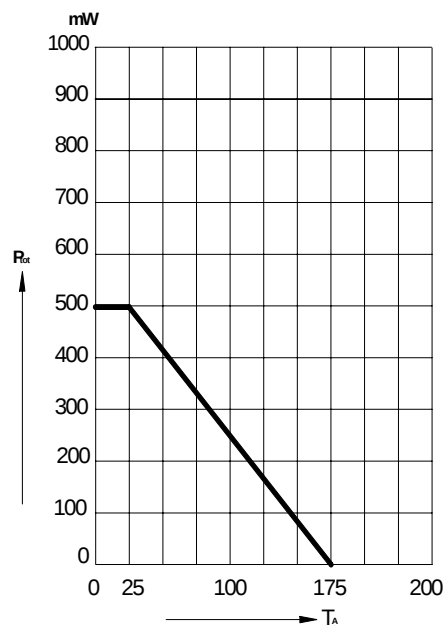


FIG.2- FORWARD CHARACTERISTICS

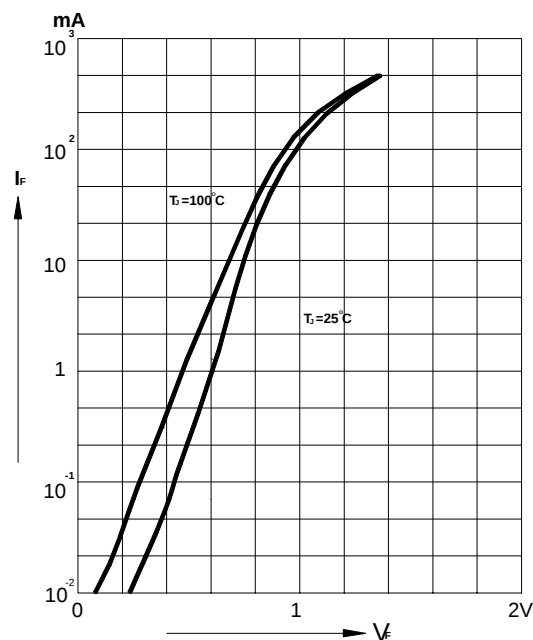


FIG.3-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

