

## SMALL SIGNAL SWITCHING DIODE

REVERSE VOLTAGE: 75 V

CURRENT: 0.15 A

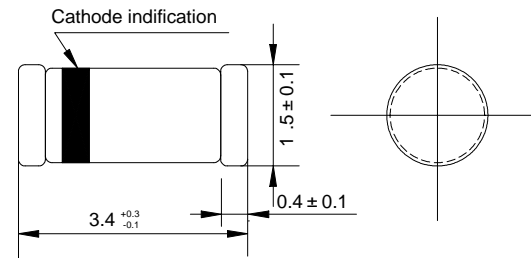
### FEATURES

- ◇ 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



## 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 $t_p=4\mu s$	$I_{FSM}$	2.0	A
Power dissipation at $t_{amb}=25^\circ C$	$P_{tot}$	500 <sup>1)</sup>	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.

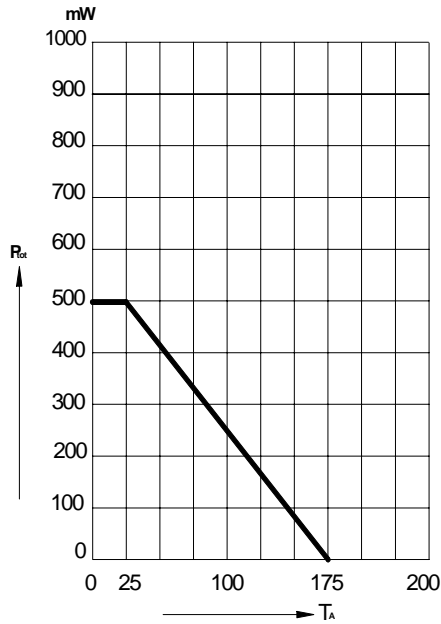
### ELECTRICAL CHARACTERISTICS

		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 $V_R=20V$	$I_R$	-	-	25.0	n A
at $V_R=75V$	$I_R$	-	-	5.0	$\mu A$
at $V_R=20V$ $T_J=150^\circ C$	$I_R$	-	-	50.0	$\mu A$
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, fp=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 <sup>1)</sup>	K/W
Rectification efficiency at 100MHz, $V_{RF}=2V$	$\eta_V$	0.45	-	-	-

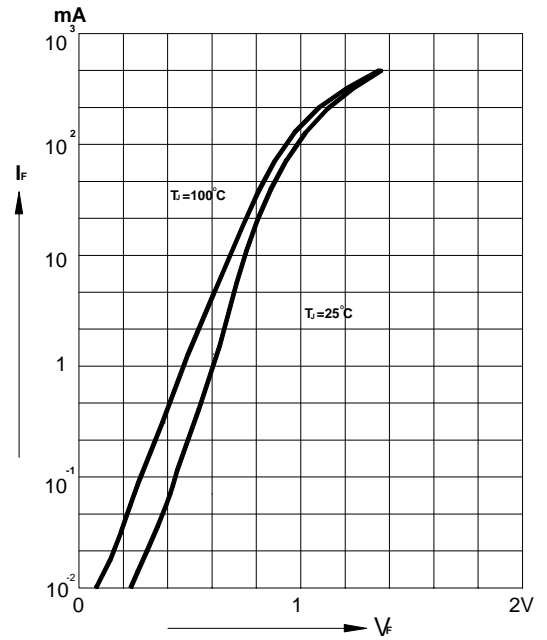
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**FIG.1 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE**



**FIG.2- FORWARD CHARACTERISTICS**



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

