| SMALL SIGNAL SWITCHING DIODE | REVERSE VOLTAGE **- 75** Volts<br>FORWARD CURRENT **- 0.15**Amperes |
|---|---|

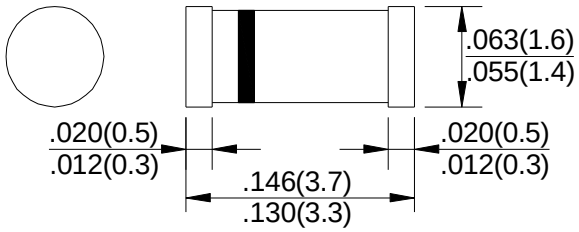
## FEATURES

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

## MECHANICAL DATA

- Case: Mini-MELF glass case
- Polarity: Color band denotes cathode
- Weight : Approx.0.05 grams

**DL - 35**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

## MAXIMUM RATINGS

| | | LL4148 | UNIT |
|---|---|---|---|
| Reverse Vltage | $V_R$ | 75 | V |
| Peak Reverse Voltage | $V_{RM}$ | 100 | V |
| Average Forward Rectified Current<br>Half Wave Rectification with Resist .load<br>at $T_{amb}$=25℃ and f≅50Hz | $I_O$ | 150 | mA |
| Forward Surge Current at t＜1s and $T_J$=25℃ | $I_{FSM}$ | 500 | mA |
| Power Dissipation at Tamb=25℃ | $P_{tot}$ | 500(1) | mW |
| Junction Temperature | $T_J$ | 175 | ℃ |
| Storage Temperature Range | $T_{STG}$ | - 65 to + 175 | ℃ |

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

## ELECTRICAL CHARACTERISTICS

| | | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|
| Forward Voltage at $I_F$=10mA | VF | - | - | 1 | 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℃ | $I_R$ | - | - | 50 | uA |
| Capacitance at $V_F$=$V_R$=0V | $C_{tot}$ | - | - | 4 | pF |
| Voltage Rise When Switching ON<br>Tested With 50mA Pulses<br>tp=0.1us.Rise Time<30ns.fp=5to 100Hz | $V_{fr}$ | - | - | 2.5 | v |
| Reverse Recovery Time From IF=10mA<br>$V_R$=6V. RL=100Ω at $I_R$=1mA | $t_{rr}$ | - | - | 4 | ns |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | - | - | 350(1) | ℃/W |
| Rectification Effciency at 100MHZ $V_{RF}$=2V | ηV | 0.45 | - | - | - |

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

FLG.1-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

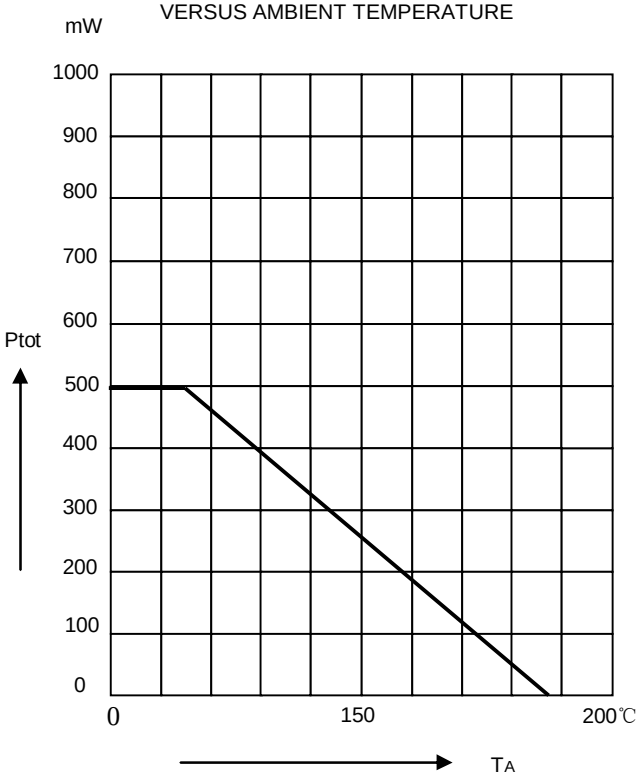
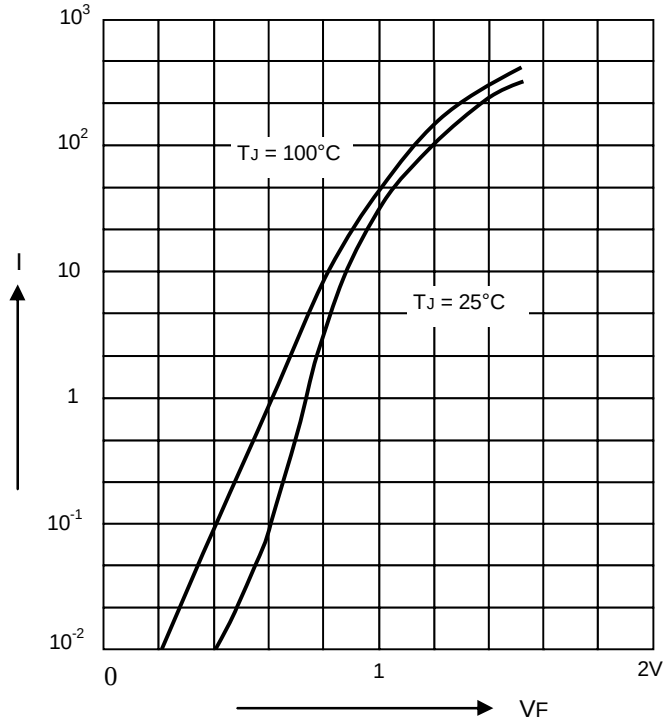



FIG.2-FORWARD CHARACTERISTICS




FLG.3-ADMISSIBLE REPETITVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

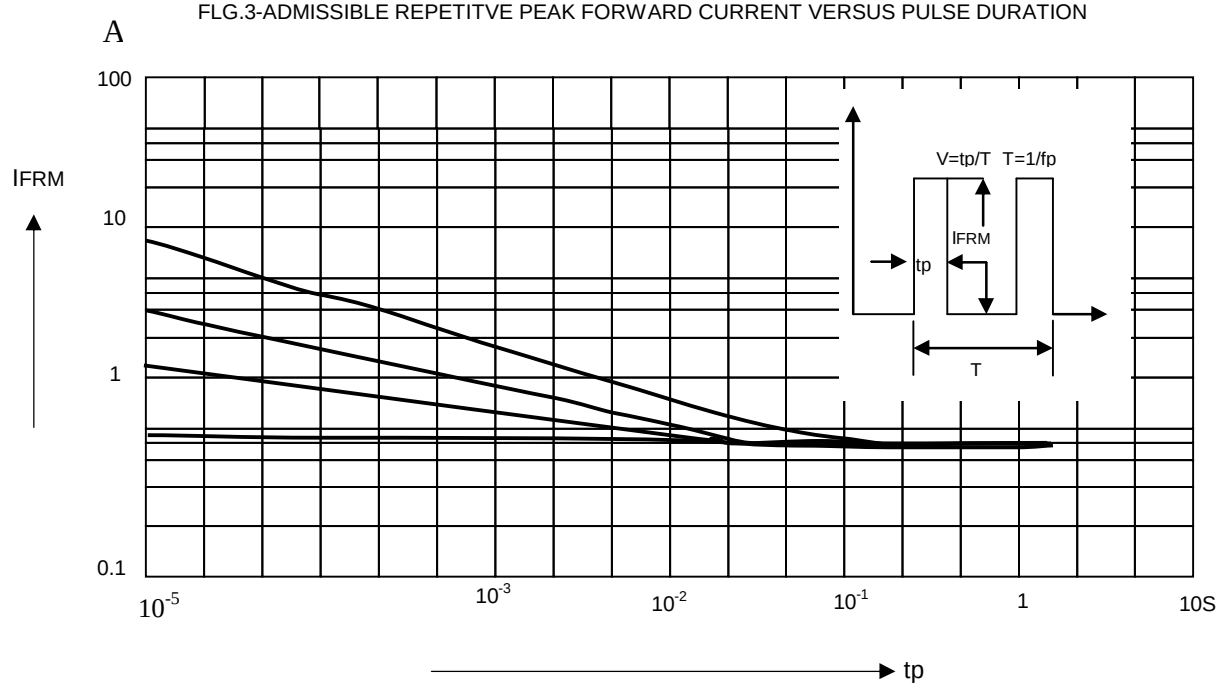


FIG.4-RECTIFICATION EFFICIENCY
MEASUREMENT CIRCUIT

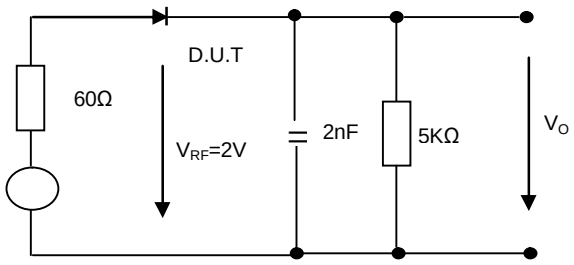



FIG.5-RELATIVE CAPACITANCE
VERSUS VOLTAGE

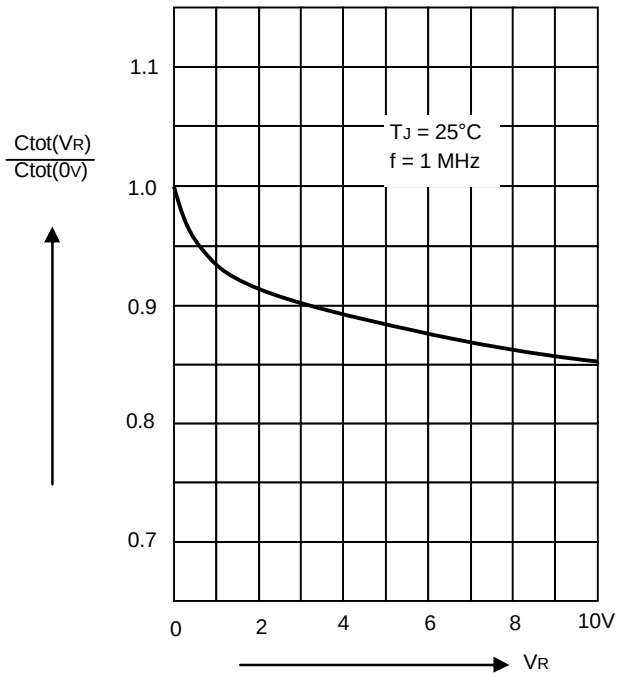



FIG.6-LEAKAGE CURRENT VERSUS
JUNCTION TEMPERATURE

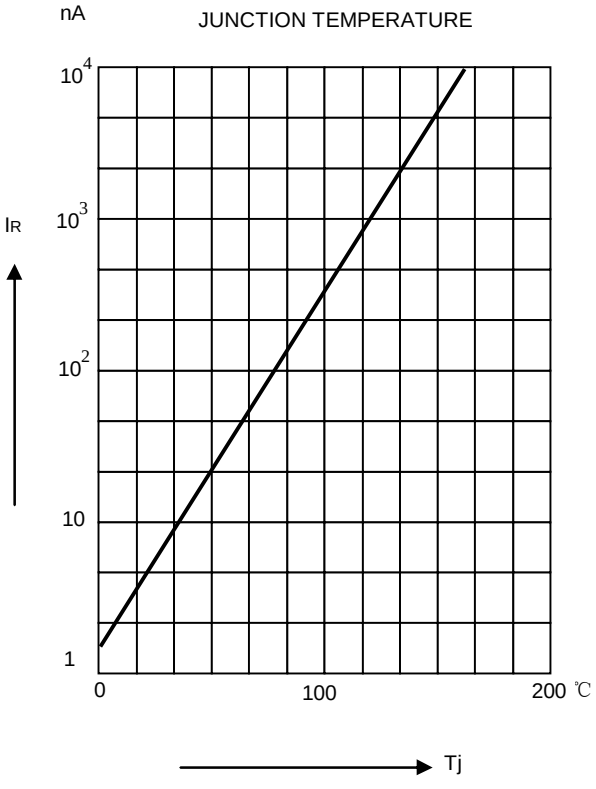



FIG.7-DYNAMIC FORWARD RESISTANCE
VERSUS FORWARD CURRENT