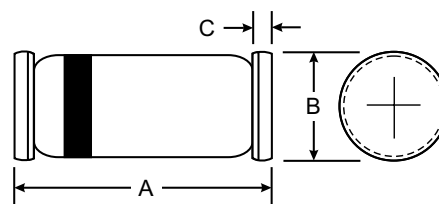


Features

- The glass passivated, three-layer, two terminal, axial lead, hermetically sealed diacs are designed specifically for triggering thyristors. They demonstrate low breakover current at breakover voltage as they withstand peak pulse current. The breakover symmetry is within four volts with a typical breakover voltage of LLDB3 32 V, LLDB4 40 V. These diacs are intended for use in thyristor phase control, circuits for lamp-dimming, universal-motor speed controls, and heat controls.



Mechanical Data

- Case: SOD-80/LL34, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.05 grams (approx.)



| LL34/ SOD-80 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.30 | 3.70 |
| B | 1.30 | 1.60 |
| C | 0.28 | 0.50 |
| All Dimensions in mm | | |

Absolute Ratings

| Characteristic | Value | Symbol | Unit |
|---|--------------------------|---------------------|------|
| | | | |
| Power Dissipation on Printed Circuit(L=10mm) $T_A=50^\circ\text{C}$ | 150 | Pc | mW |
| Repetitive Peak on-state Current $t_p=10\mu\text{s}$ $f=100\text{Hz}$ | 2.0 2.0 2.0 1.6 | I _{TRM} | A |
| Storage and Operating Junction Temperature | -40 to +125/-40 to +110 | T _{STG/TJ} | °C |

Electrical Characteristics

| Characteristic | Condition | Value | Symbol | Unit | | | | |
|-----------------------------------|--|-------|--------|------|-------|--------|-------------------------------|-------|
| | | | | | LLDB3 | LLDC34 | LLDB4 | LLDB6 |
| Breakover Voltage (Note 2) | C=22nF(Note 2) See diagram 1 | Min | 28 | 30 | 35 | 56 | V _{BO} | V |
| | | Typ | 32 | 34 | 40 | 60 | | |
| | | Max | 36 | 38 | 45 | 70 | | |
| Breakover Voltage Symmetry | C=22nF(Note 2) See diagram 1 | Max | ±3 | | ±4 | | $\frac{ +V_{BO} }{ -V_{BO} }$ | V |
| Dynamic Breakover Voltage (Note1) | $\Delta I=I_{BO}$ to $I_F=10\text{mA}$ See Diagram 1 | Min | 5 | | 10 | | $ \pm \Delta V $ | V |
| Output Voltage (Note 1) | See Diagram 2 | Min | 5 | | | | V _O | V |
| Breakover Current (Note1) | C=22nF(Note 2) | Max | 100 | | | | I _{BO} | μA |
| Rise Time (Note1) | See Diagram 3 | Typ | 1.5 | | | | t _r | μs |
| Leakage Current (Note1) | V _B =0.5 V _{BO} max see diagram 1 | Max | 10 | | | | I _B | μA |

Notes: 1.Electrical characteristics applicable in both forward and reverse directions.
2.Connected in parallel with the devices.

DIAGRAM 1: Current-voltage characteristics

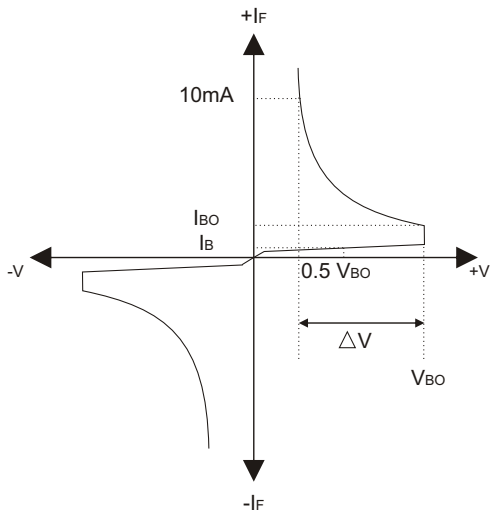


FIG.1-Power dissipation versus ambient temperature (maximum values)

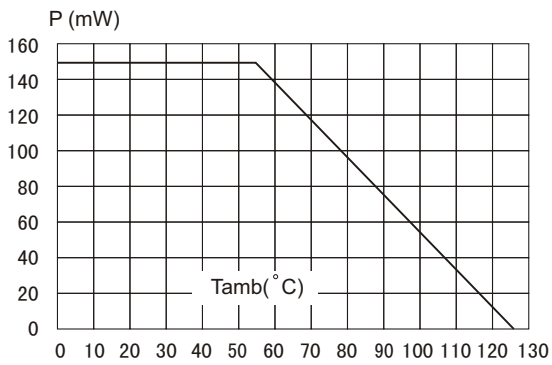


FIG.3-Peak pulse current versus pulse duration (maximum values)

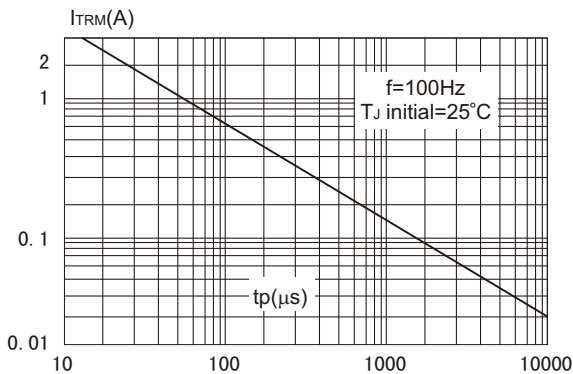


DIAGRAM 2: Test circuit for output voltage

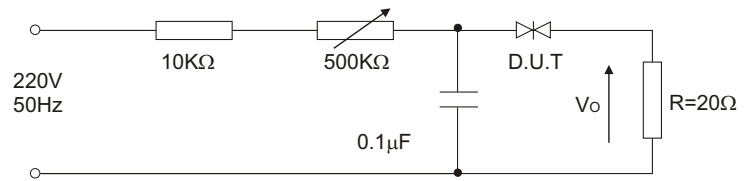


DIAGRAM 3: Test circuit see diagram2 adjust R for $I_P=0.5\text{A}$

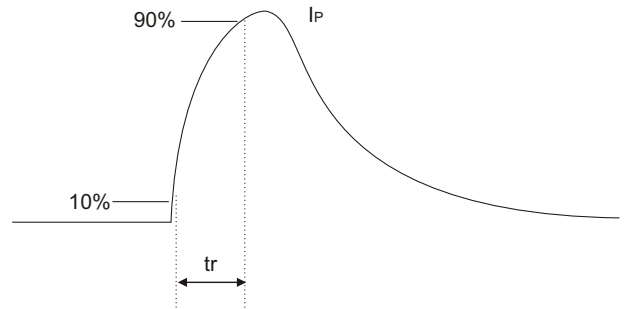


FIG.2-Relative variation of VBO versus junction temperature (typical values)

