

Triacs and Diacs

| Order code | Manufacturer code | Description |
|------------|-------------------|-------------------------|
| 47-3412 | DB3 | DB3 32V DIAC DO-35 (ST) |

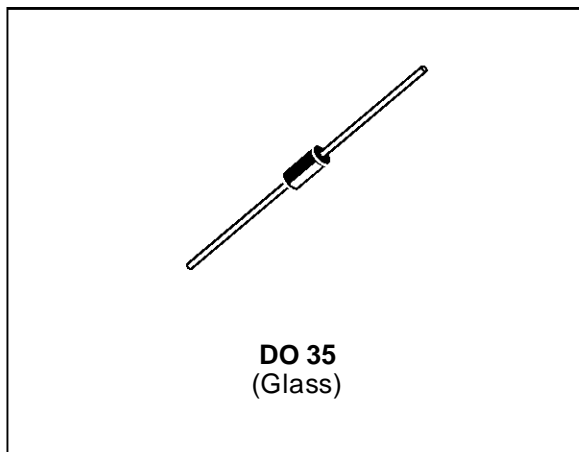
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|--|--------------------------|
| Triacs and Diacs | Page 1 of 5 |
| The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E. | Revision A 04/07/2003 |

TRIGGER DIODES
FEATURES

- V_{BO} : 32V / 34V / 40V VERSIONS
- LOW BREAKOVER CURRENT

DESCRIPTION

High reliability glass passivation insuring parameter stability and protection against junction contamination.


ABSOLUTE RATINGS (limiting values)

| Symbol | Parameter | | Value | Unit |
|------------------------------------|---|--------------------------|--------------------------------|----------|
| P | Power dissipation on printed circuit (L = 10 mm) | Ta = 65 °C | 150 | mW |
| I _{TRM} | Repetitive peak on-state current | tp = 20 μs F = 100 Hz | 2 | A |
| T _{stg} T _j | Storage and operating junction temperature range | | - 40 to + 125 - 40 to + 125 | °C °C |

THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|-----------------------|---------------------|-------|------|
| R _{th (j-a)} | Junction to ambient | 400 | °C/W |
| R _{th (j-l)} | Junction-leads | 150 | °C/W |

DB3 / DB4 / DC34

ELECTRICAL CHARACTERISTICS (Tj = 25°C)

| Symbol | Parameter | Test Conditions | | Value | | | Unit |
|--|-----------------------------|---|-----|-------|------|-----|------|
| | | | | DB3 | DC34 | DB4 | |
| V _{BO} | Breakover voltage * | C = 22nF ** see diagram 1 | MIN | 28 | 30 | 35 | V |
| | | | TYP | 32 | 34 | 40 | |
| | | | MAX | 36 | 38 | 45 | |
| [+V _{BO} - -V _{BO}] | Breakover voltage symmetry | C = 22nF ** see diagram 1 | MAX | ± 3 | | | V |
| ΔV ± I | Dynamic breakover voltage * | ΔI = [I _{BO} to I _F =10mA] see diagram 1 | MIN | 5 | | | V |
| V _O | Output voltage * | see diagram 2 | MIN | 5 | | | V |
| I _{BO} | Breakover current * | C = 22nF ** | MAX | 100 | 50 | 100 | μA |
| t _r | Rise time * | see diagram 3 | TYP | 1.5 | | | μs |
| I _B | Leakage current * | V _B = 0.5 V _{BO} max see diagram 1 | MAX | 10 | | | μA |

* Electrical characteristic applicable in both forward and reverse directions.

** Connected in parallel with the devices.

DIAGRAM 1 : Current-voltage characteristics

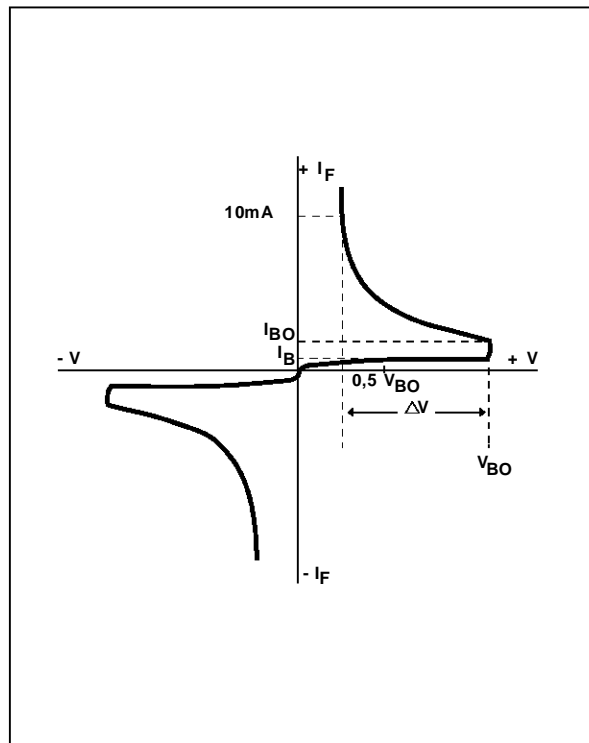
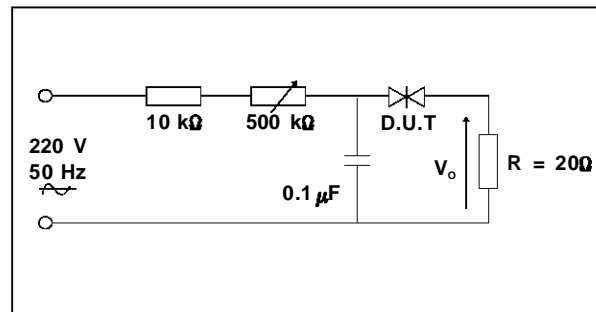


DIAGRAM 2 : Test circuit for output voltage



**DIAGRAM 3 : Test circuit see diagram 2.
Adjust R for I_p=0.5A**

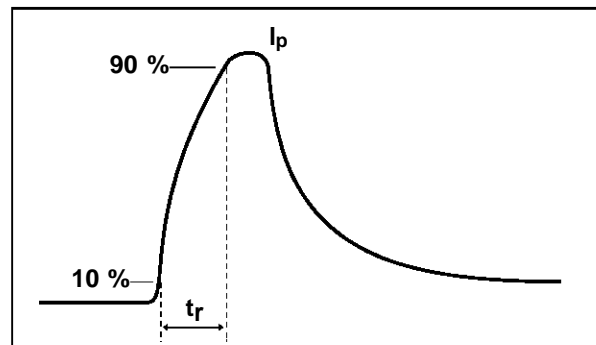


Fig.1 : Power dissipation versus ambient temperature (maximum values)

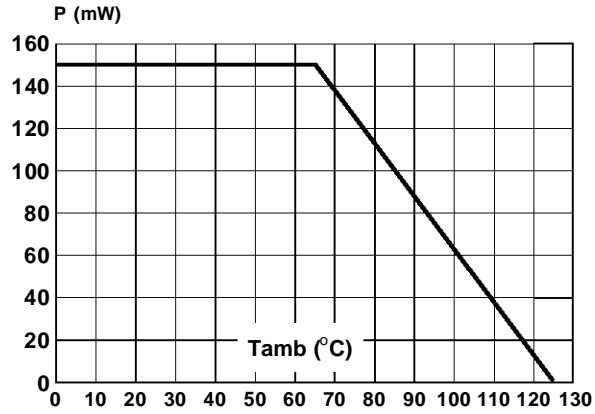


Fig.2 : Relative variation of V_{BO} versus junction temperature (typical values)

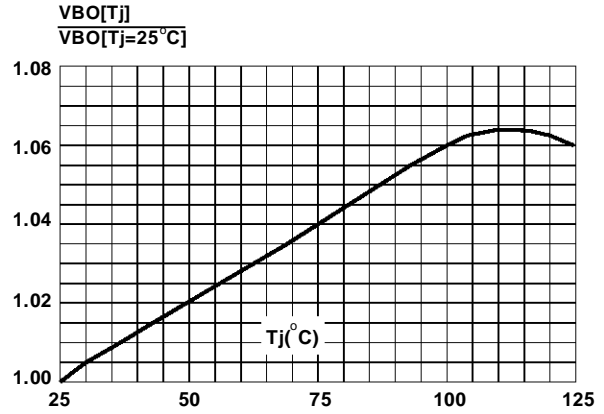
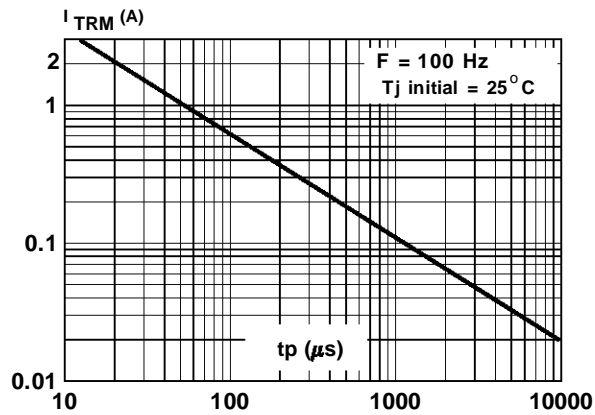
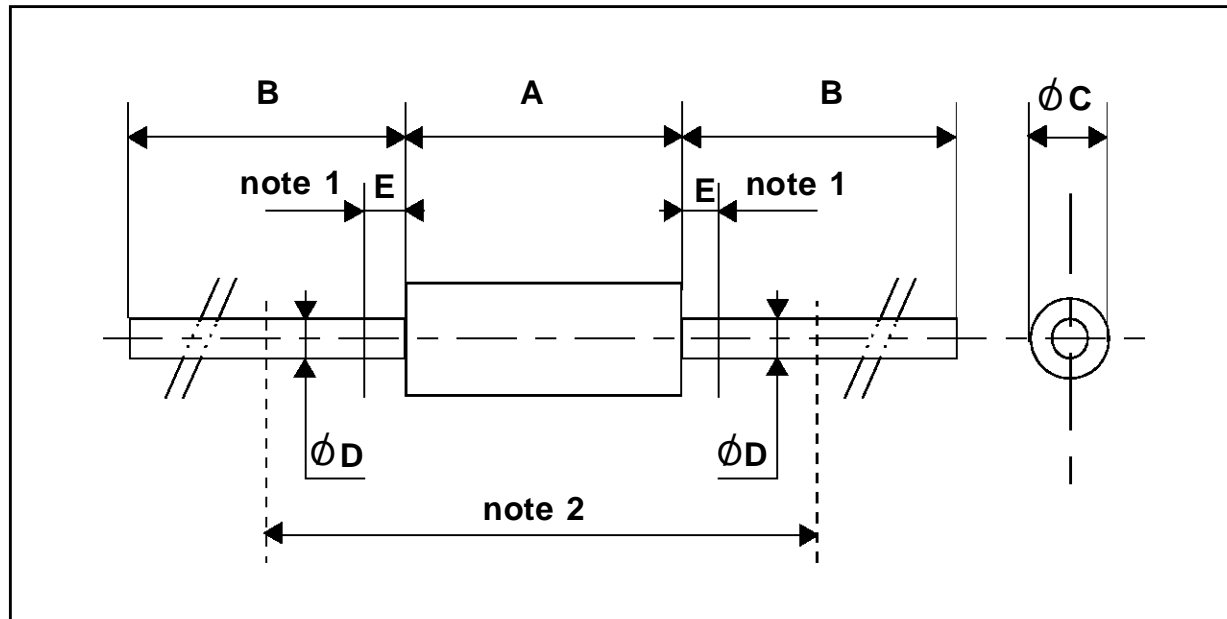


Fig.3 : Peak pulse current versus pulse duration (maximum values)



DB3 / DB4 / DC34

PACKAGE MECHANICAL DATA (in millimeters)
DO 35 Glass



| REF. | DIMENSIONS | | | | NOTES |
|-----------------|-------------|-------|--------|-------|--|
| | Millimeters | | Inches | | |
| | Min. | Max. | Min. | Max. | |
| A | 3.050 | 4.500 | 0.120 | 0.117 | 1 - The lead diameter $\varnothing D$ is not controlled over zone E 2 - The minimum axial length within which the device may be placed with its leads bent at right angles is 0.59" (15 mm) |
| B | 12.7 | | 0.500 | | |
| $\varnothing C$ | 1.530 | 2.000 | 0.060 | 0.079 | |
| $\varnothing D$ | 0.458 | 0.558 | 0.018 | 0.022 | |
| E | | 1.27 | | 0.050 | |

Cooling method by convection and conduction
 Marking : type number
 Weight : 0.15 g

Polarity : N A
 Stud torque : N A

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