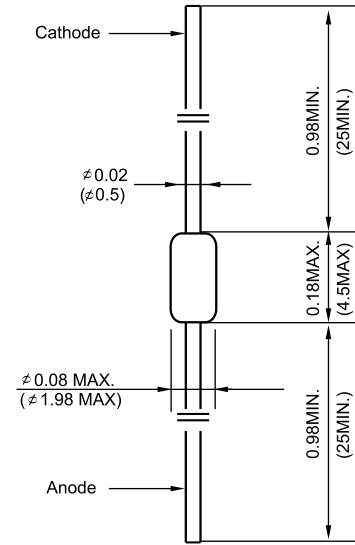


VOLTAGE RANGE: 28-45 V
DO-35


Features

- ◇ The 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 three volts(DB3,DB4). These diacs are intended for use in thyristors phase control,circuits for lamp dimming, universal motor speed control,and heat control.

ABSOLUTE RATINGS

Dimensions in inches and (millimeters)

| Parameters | Symbols | DB3,DB4 | UNITS |
|---|-----------|-------------|--------------------|
| Power dissipation on printed $T_A=50^{\circ}\text{C}$ circuit (L=10mm) | P_c | 150.0 | mW |
| Repetitive peak on-state current $t_p=20\ \mu\text{S}$ $f=120\text{Hz}$ | I_{TRM} | 2.0 | A |
| Operating junction temperature | T_J | -40--- +125 | $^{\circ}\text{C}$ |
| Storage temperature | T_{STG} | -40--- +125 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS

| Parameters | Test Conditions | DB3 | DB4 | UNITS | |
|------------------------------------|--|-----|-----------|-------|---------------|
| Breakover voltage (NOTE 1) | $C=22\text{nf}$ (NOTE 2) See FIG.1 | Min | 28 | 35 | V |
| | | Typ | 32 | 40 | |
| | | Max | 36 | 45 | |
| Breakover voltage symmetry | $C=22\text{nf}$ (NOTE 2) See FIG.1 | Max | ± 3.0 | | V |
| Dynamic breakover voltage (NOTE 1) | $\Delta I=(I_{BO}\text{ to }I_F=10\text{mA})$ See FIG.1 | Min | 5.0 | | V |
| Output voltage (NOTE 1) | See FIG.2 | Min | 5.0 | | V |
| Breakover current (NOTE 1) | $C=22\text{nf}$ (NOTE 2) | Max | 100.0 | | μA |
| Rise time (NOTE 1) | See FIG.3 | Typ | 1.5 | | μS |
| Leakage current (NOTE 1) | $V_R=0.5V_{BO}$ See FIG.1 | Max | 10.0 | | μA |

NOTE: 1.Electrical characteristics applicable in both forward and reverse directions.

2.Connected in parallel with the devices

Ratings and Characteristic Curves

FIG.1-VOLTAGE-CURRENT CHARACTERISTIC CURVE

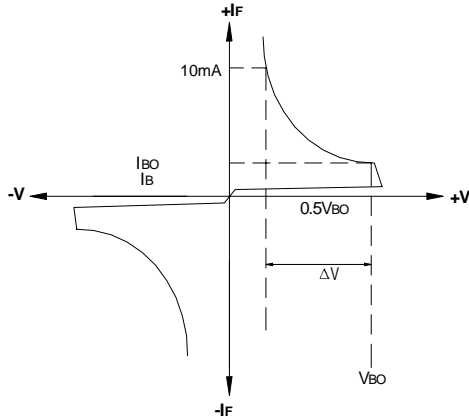


FIG.2-TEST CIRCUIT FOR OUTPUT VOLTAGE

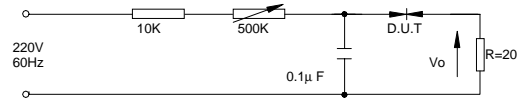


FIG.3- TEST CIRCUIT SEE FIG.2 ADJUST R FOR $I_P=0.5A$

FIG.4-POWER DISSIPATION VERSUS AMBIENT TEMPERATURE (MAXIMUM VALUES)

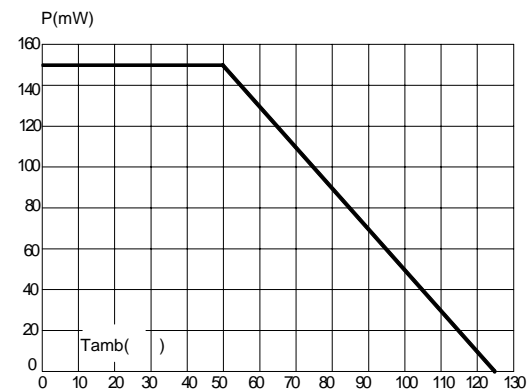
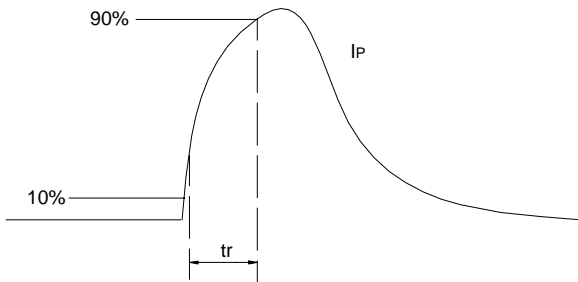
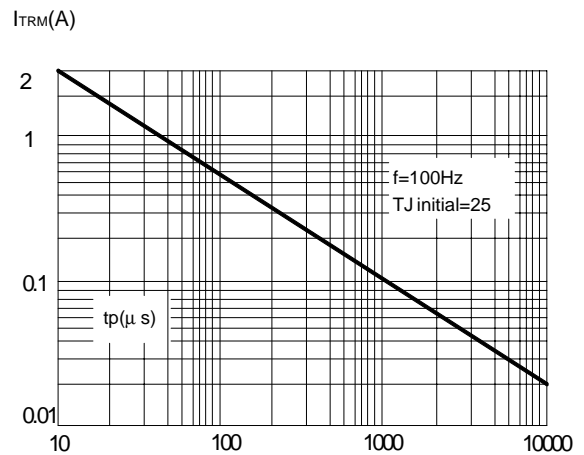
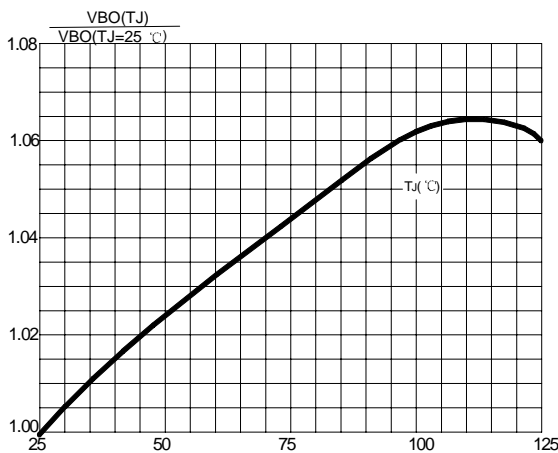


FIG.5-RELATIVE VARIATION OF V_{BO} VERSUS JUNCTION TEMPERATURE(TYPICAL VALUES)

FIG.6-PEAK PULSE CURRENT VERENT VERSUS PULSE DURATION(MAXIMUM VALUES)



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| DO-35 | 5000/AMMO | 100000 | 41X28.5X38 | 14.57 | 13.07 |