



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

DB3
THRU
DB4

TECHNICAL SPECIFICATIONS OF BIDIRECTIONAL DIODE THYRISTORS (DIACS)

FEATURES

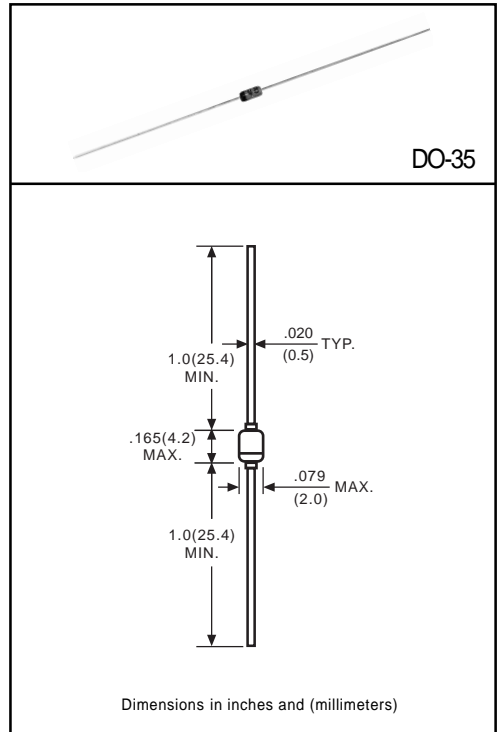
- * Glass passivated three-layer for triggering thyristors.
- * Low breakover current at breakover voltage.
- * For use in thyristor phase-control circuit for lampdimming, universal-motor speed control and heat controls.

MECHANICAL DATA

- * Case: Glass sealed case
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 0.15 gram Approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



PARAMETERS	SYMBOL	DB3	DB4	UNITS
Breakover Voltage	+VBO, -VBO	28	35	Volts Min
		32	40	Typ
		36	45	Max
Breakover Voltage Symmetry	(+VBO)-(-VBO)	3	3	Volts Max
Dynamic Breakback Voltage	VBO - VBR	5	5	Volts Min
Breakover Current	+IBO, -IBO	100	100	μAmps Max
Peak Pulse Current for 10μS, 120pps, TA ≤ 40°C	IP	2.0	2.0	Amps Max

RATING AND CHARACTERISTIC CURVES (DB3 THRU DB4)

FIG.1 - VOLTAGE-CURRENT CHARACTERISTICS

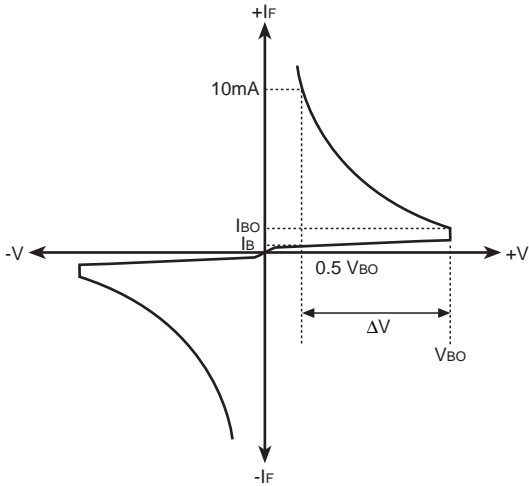


FIG.2 - TEST CIRCUIT FOR OUTPUT VOLTAGE

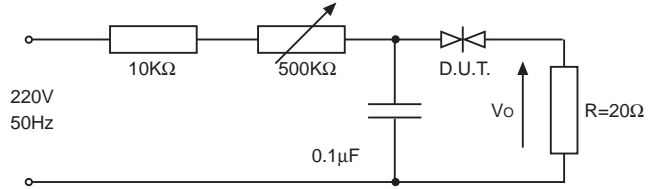


FIG.3 - TEST CIRCUIT SEE FIG.2 ADJUST R FOR $I_P=0.5A$

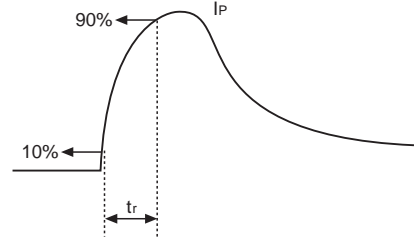
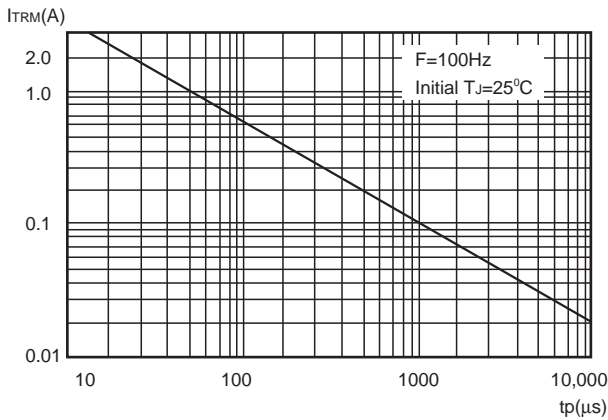
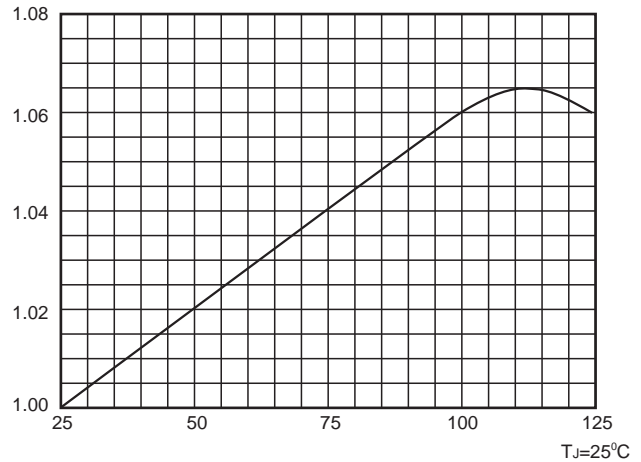


FIG.4 - REPETITIVE PEAK ON-STATE CURRENT VS PULSE DURATION



$$\frac{V_{Bo}(T_j)}{V_{Bo}(T_j=25^\circ C)}$$

FIG.5 - NORMALIZED V_{Bo} CHANGE VS JUNCTION TEMPERATURE



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