



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**DB3
THRU
DB6**

TECHNICAL SPECIFICATIONS OF BIDIRECTIONAL DIODE THYRISTORS (DIACS)

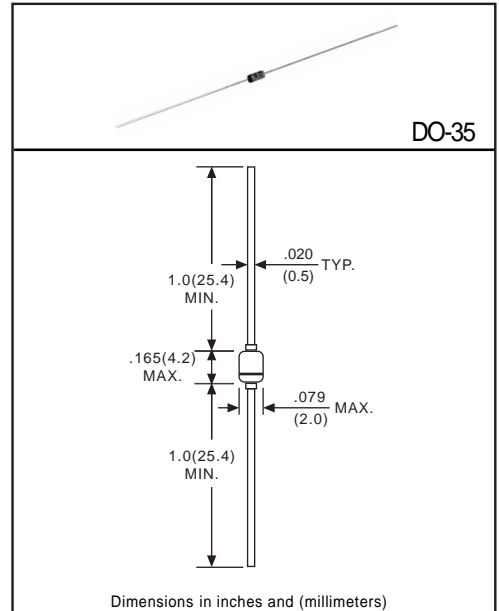
FEATURES

- * 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
 Rating 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%.



ABSOLUTE RATINGS(LIMITING VALUES)

PARAMETERS	SYMBOL	VALUE				UNITS
		DB3	DC34	DB4	DB6	
Power Dissipation on Printed Circuit (L=10mm) T _A =25°C	P _c	150				mW
Repetitive Peak on-state Current t _p =10μs f=100Hz	I _{TRM}	2.0		1.6		mA
Maximum Lead Temperature for Soldering	T _{STG} /T _J	-40 to +125				°C

ELECTRICAL CHARACTERISTICS

PARAMETERS	TEST CONDITIONS	SYMBOL	VALUE				UNITS
			DB3	DC34	DB4	DB6	
Breakover Voltage (Note 2)	C=22nF (Note 2) See FIG. 1	Min	28	30	35	56	Volts
		Typ	32	34	40	60	
		Max	36	38	45	70	
Breakover Voltage Symmetry	C=22nF (Note 2) See FIG. 1	Max	I+VBOI-I-VBOI		A 3	A 4	Volts
Dynamic Breakback Voltage (Note 1)	ΔI=(I _{BO} to I _F =10mA) See FIG. 1	Min	ΔV		5	10	Volts
Output Voltage (Note 1)	See FIG. 2	Min	V _O				Volts
Breakover Current (Note 1)	C=22nF (Note 2)	Max	I _{BO}				μA
Rise time (Note 1)	See FIG. 3	Typ	t _r				μs
Leakage Current (Note 1)	V _B =0.5 V _{BO} max See FIG. 1	Max	I _B				μA

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

RATING AND CHARACTERISTIC CURVES (DB3 THRU DB6)

FIG.1 - VOLTAGE-CURRENT CHARACTERISTICS

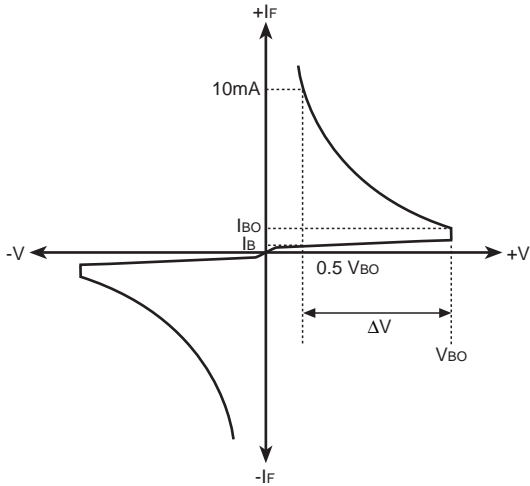


FIG.2 - TEST CIRCUIT FOR OUTPUT VOLTAGE

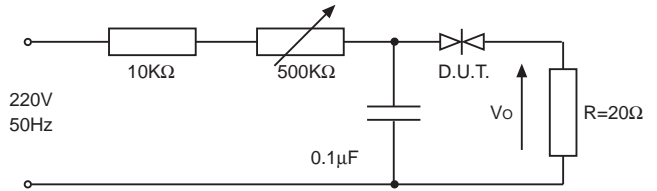


FIG.3 - TEST CIRCUIT SEE FIG.2 ADJUST R FOR $I_P=0.5\text{A}$

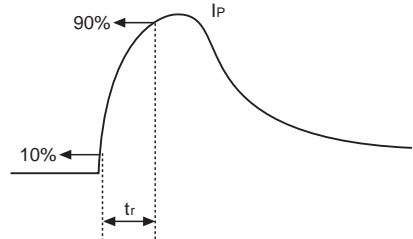


FIG.4 - REPETITIVE PEAK ON-STATE CURRENT VS PULSE DURATION

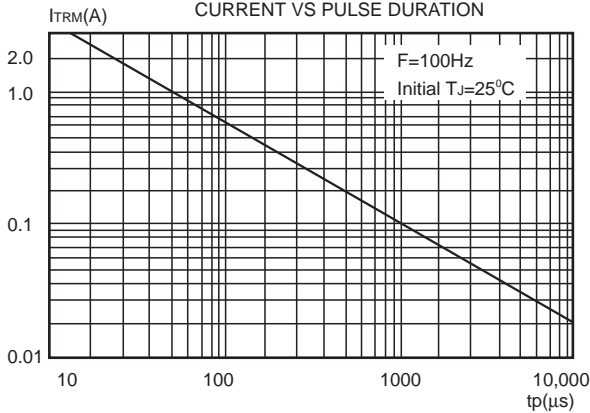


FIG.5 - REPETITIVE PEAK ON-STATE CURRENT VS PULSE DURATION

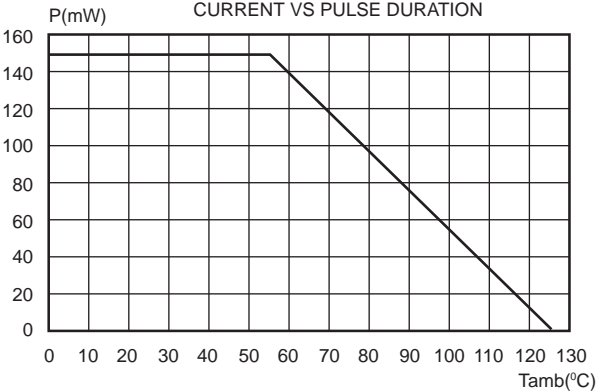
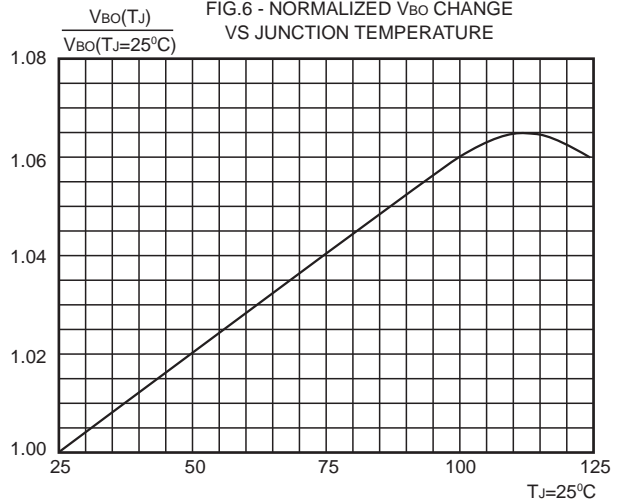


FIG.6 - NORMALIZED V_{Bo} CHANGE VS JUNCTION TEMPERATURE



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