



Bidirectional DIAC Trigger Diode

DB3B

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Features

- Low breakover current: 15µA Max.
- Excellent symmetry
- Very low leakage current
- Trigger diode with a fixed voltage reference
- High temperature soldering guaranteed:
250°C/10s/9.5mm lead length at 5 lbs tension
- RoHS Compliance



DO-35



Mechanical Data

Case:	Glass Case DO-35
Terminals:	Plated axial leads, solderable per MIL-STD-750, method 2026
Weight:	Approx. 0.13 gram

Maximum Ratings and Electrical Characteristics (T_A=25°C unless noted otherwise)

Symbol	Description	Value			Unit	Conditions
		Min.	Typ.	Max.		
V _{BO}	Breakover Voltage*	30	32	34	V	I _{BO} , C=22nF**
+V _{BO} - -V _{BO}	Breakover Voltage Symmetry	-2	-	2	V	I _{BO} , C=22nF**
±ΔV	Dynamic Breakover Voltage**	9	-	-	V	V _{BO} and V _F at 10mA
V _O	Output Voltage*	5	-	-	V	See Fig.6 (R=20Ω)
I _{BO}	Breakover Current*	-	-	15	µA	C=22nF**
T _r	Rise Time*	-	-	2	µs	See Fig.5
I _B	Leakage Current*	-	-	10	µA	V _B =0.5V _{BO} Max.
I _P	Peak Current*	0.3	-	-	A	See Fig.6 (Gate)
P _d	Power Dissipation on Printed Circuit	-	-	150	mW	T _a =50°C
I _{TRM}	Repetitive Peak on-state Current	-	-	2	A	tp=20µs, f=100Hz
R _{thJA}	Typical Thermal Resistance	-	-	400	°C / W	
R _{thJL}		-	-	150	°C / W	

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Symbol	Description	Value	Unit	Conditions
T _J	Operating Temperature range	-40 to + 110	°C	
T _{STG}	Storage Temperature Range	-40 to + 125		

*Electrical characteristic applicable in forward and reverse directions.

**Connected in parallel with the devices.

Typical Characteristics Curves

Fig.1-Max. Power Dissipation

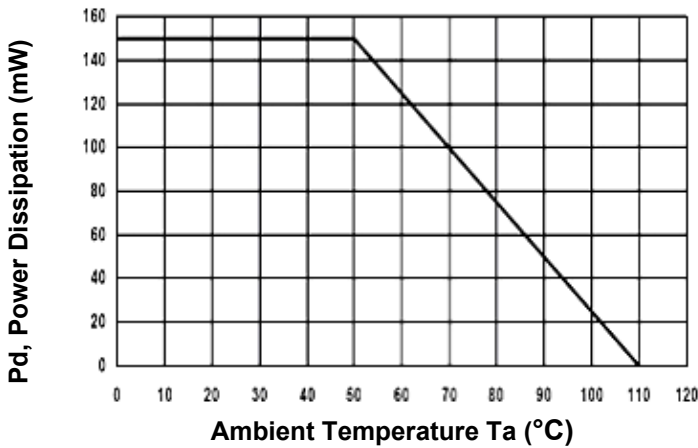


Fig.2- Typical Relative Variation of VBO

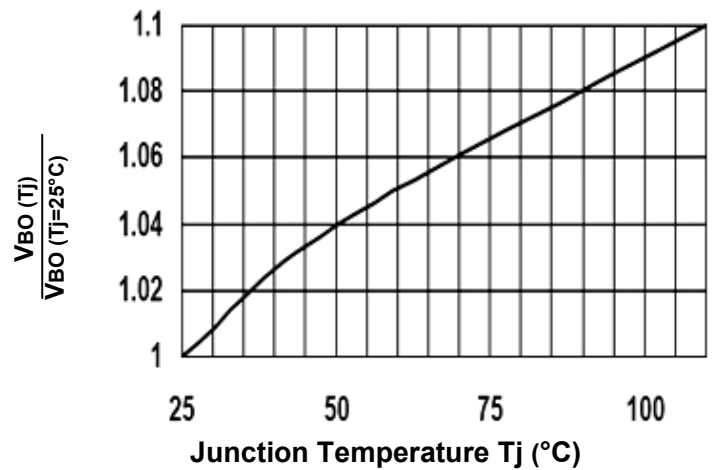
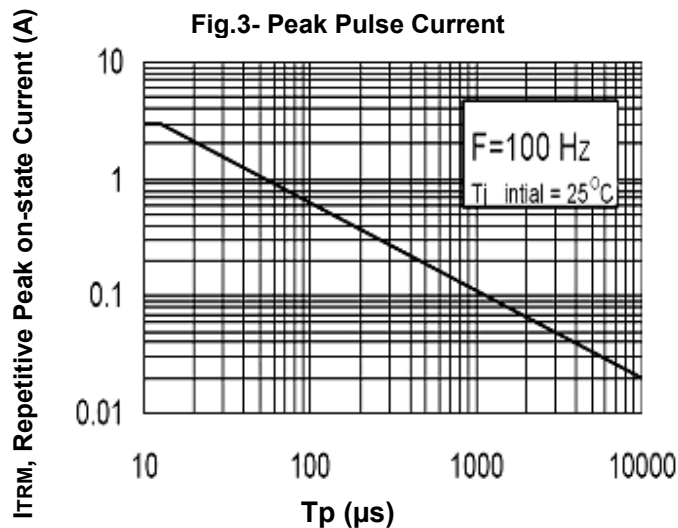


Fig.3- Peak Pulse Current



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Fig.4-Voltage – Current characteristic Curve

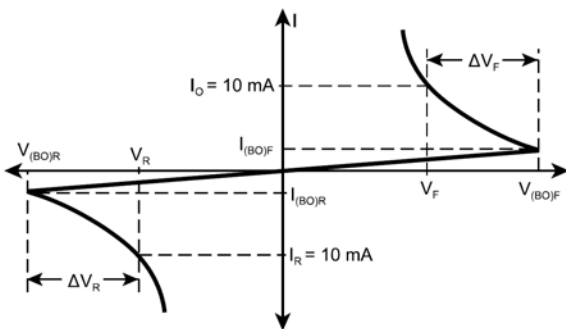


Fig.5- Rise Time Measurement

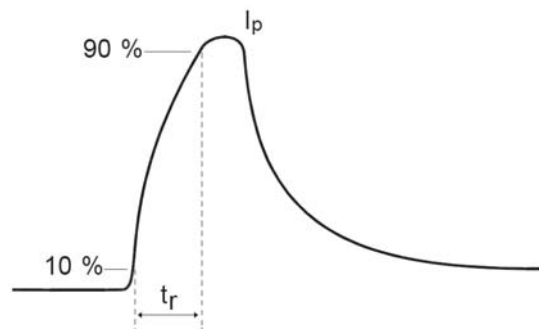
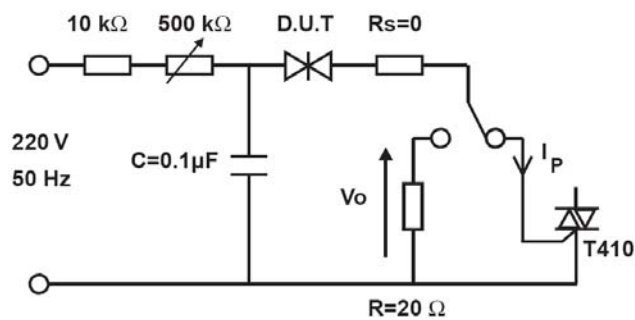


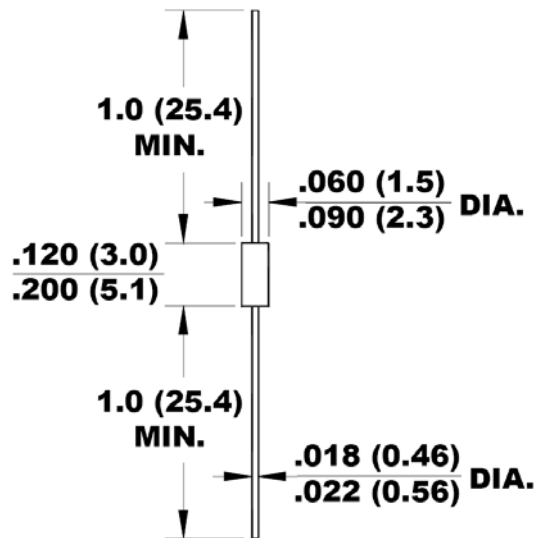
Fig.6-Test Circuit for Output Voltage



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Dimensions in inches (mm)



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