TAITRON components incorporated

Bidirectional DIAC Trigger Diode

DB3BM

Bidirectional DIAC Trigger Diode

Features

- Low breakover current: 15μA Max.
- Excellent symmetry
- Very low leakage current
- Trigger diode with a fixed voltage reference
- RoHS Compliance

Mini-MELF (SOD80C)

RoHS Compliant

Mechanical Data

Case:	Mini-MELF Glass Case (SOD80C)
Weight:	Approx. 0.05 gram

Maximum Ratings and Electrical Characteristics *(T_A=25ºC unless noted otherwise)*

Symbol	Description	Value			Unit	Conditions
		Min.	Typ.	Max.		
V_{BO}	Breakover Voltage*	30	32	34	V	I_{BO} ,C=22nF**
$\lvert +V_{BO} \rvert - \lvert -V_{BO} \rvert$	Breakover Voltage Symmetry	-2	-	2	V	I_{BO} ,C=22nF**
$\lvert \pm\Delta V \rvert$	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**
Tr	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	Ta=50°C
I_{TRM}	Repetitive Peak on-state Current	-	-	2	A	tp=20μs, f=100Hz
Rth_{JA}	Typical Thermal Resistance	-	-	400	°C / W	
Rth_{JL}		-	-	150	°C / W	

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

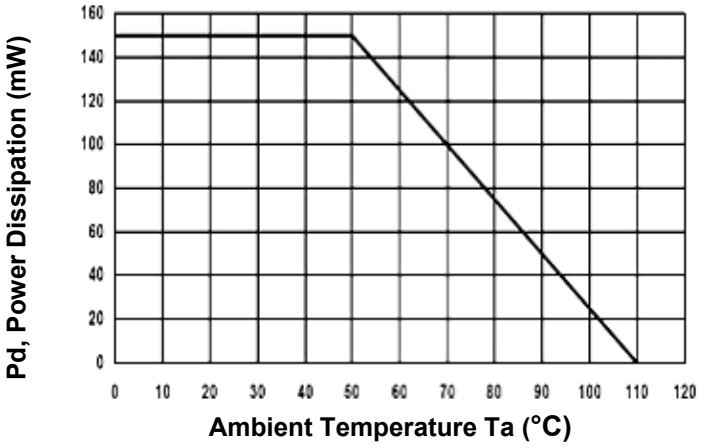


Fig.2- Typical Relative Variation of V_{BO}

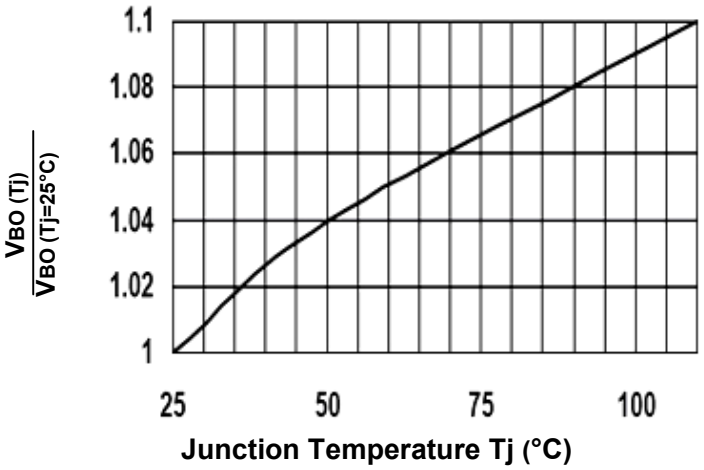


Fig.3- Peak Pulse Current

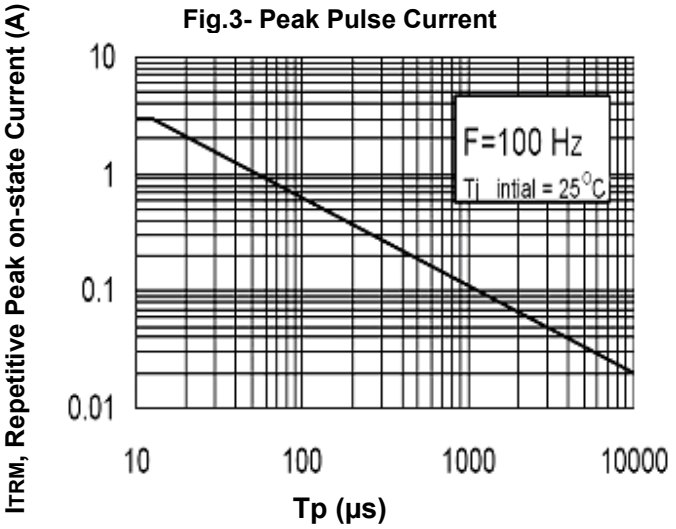


Fig.4-Voltage – Current characteristic Curve

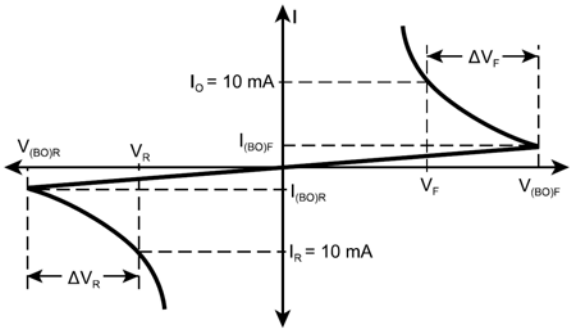


Fig.5- Rise Time Measurement

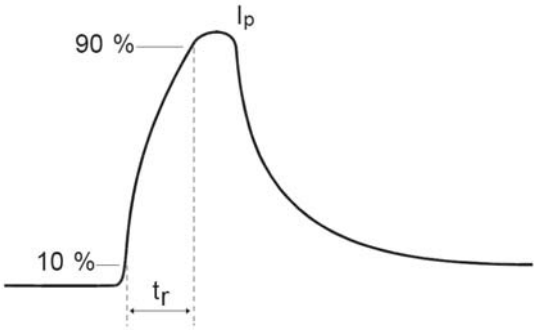
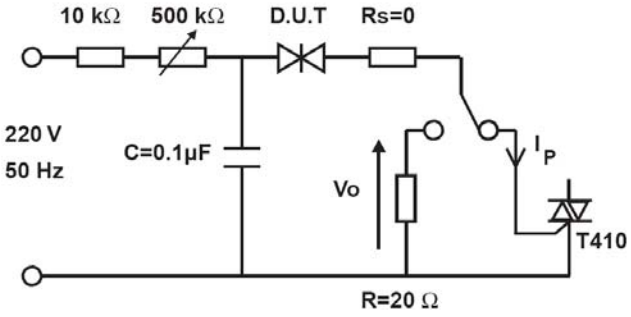
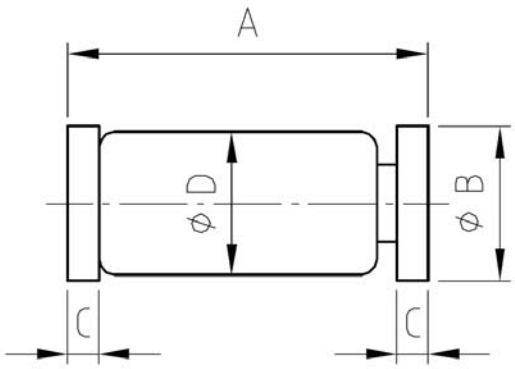


Fig.6-Test Circuit for Output Voltage



Dimensions in Millimeters



REF.	DIMENSIONS		
	Milimeters		
	Min.	Typ.	Max.
A	3.30	3.50	3.70
B	1.46	1.50	1.54
C	0.30	0.35	0.40
D	1.37	1.40	1.43

Mini-MELF (SOD80C)

How to contact us:

US HEADQUARTERS

28040 WEST HARRISON PARKAWAY, VALENCIA, CA 91355-4162
Tel: (800) TAITRON (800) 824-8766 (661) 257-6060
Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415
Email: taitron@taitroncomponents.com
Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P. 42970 MEXICO
Tel: +52-55-5560-1519
Fax: +52-55-5560-2190

TAITRON COMPONETS INCORPORATED E REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL
Tel: +55-11-5574-7949
Fax: +55-11-5572-0052

TAITRON COMPONETS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

CROSS REGION PLAZA, 899 LINGLING ROAD, SUITE 18C, SHANGHAI, 200030, CHINA
Tel: +86-21-5424-9942
Fax: +86-21-5424-9931