TAK CHEONG®

PRELIMINARY DATASHEET

TCDB3

350 mW DO-35 Hermetically Sealed Glass BI-directional Trigger Diode

AXIAL LEAD
DO35

Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I_{TRM}	Repetitive peak on-state current tp = 20us, F = 120Hz	2	A
T_{stg} T_j	Storage temperature range Operating junction temperature	-40 ~ 125	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

DEVICE MARKING DIAGRAM

Specification Features:

- V_{BO} = 32V
- DO-35 Package (JEDEC)
- Through-Hole Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Leads Are Readily Solderable
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Lead Finish

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
V_{BO}	Breakover Voltage	C = 22nF (note 2)	28	36	Volts
$[V_{BO'}]$- $[V_{BO}]$	Breakover Voltage Symmetry	C = 22nF (note 2)		3	Volts
[ΔV]	Dynamic Breakover Voltage	V_{BO} and VF at 10mA	5		Volts
Vo	Output Voltage	See diagram 2 (R = 20Ω)	5		Volts
I_{BO}	Breakover Current	C = 22nF (note 2)		50	uA
T_R	Rise Time	See diagram 3		2	uS
I_B	Leakage Current	$V_R = 0.5V_{BO}$ max		10	uA
I_P	Peak Current	See diagram 2		0.3	A

Notes:
1. All parameters applicable to both forward and reverse directions.
2. Connected in parallel in the device

DIAGRAM 1: VOLTAGE – CURRENT CHARACTERISTIC CURVE

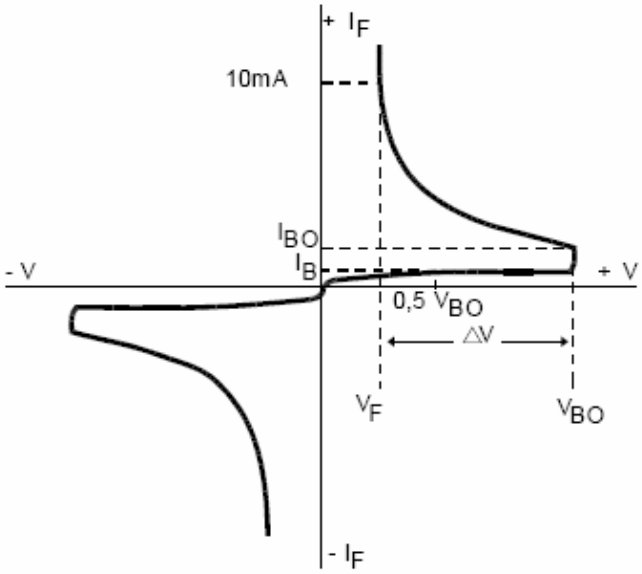


DIAGRAM 2: TEST CIRCUIT

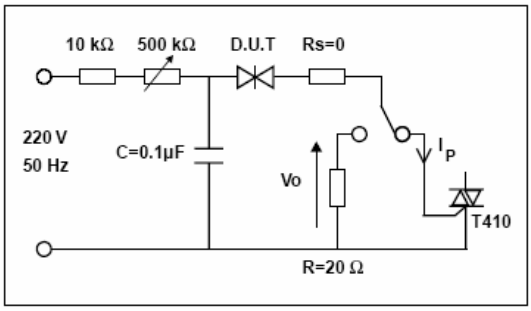
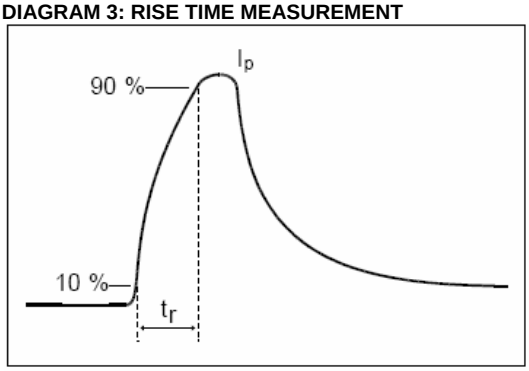


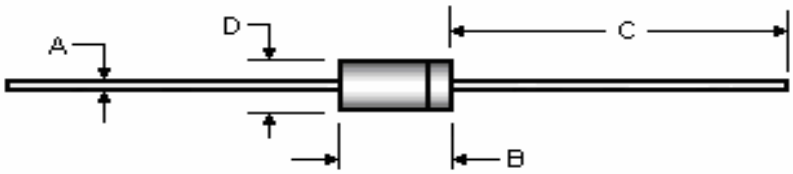
DIAGRAM 3: RISE TIME MEASUREMENT



Package Outline

Package	Case Outline

DO-35



DIM	DO-35			
	Millimeters		Inches	
	Min	Max	Min	Max
A	0.46	0.55	0.018	0.022
B	3.05	5.08	0.120	0.200
C	25.40	38.10	1.000	1.500
D	1.53	2.28	0.060	0.090

Notes:

1. All dimensions are within JEDEC standard.