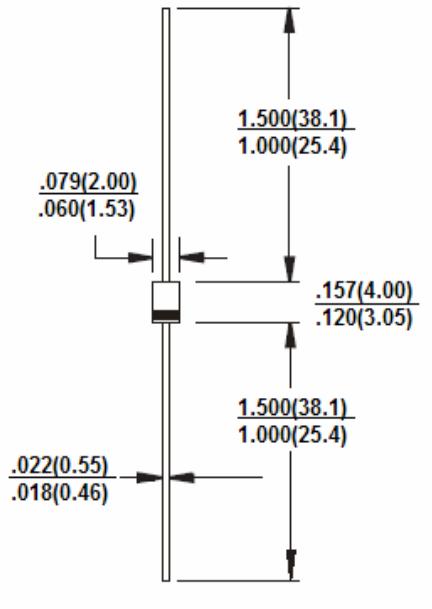
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

DB3-DB3TG

350mW Bi-directional trigger diodes

DO-35



Dimensions in inches and (millimeters)

Features

- ✧ Vbo : 32V Version
- ✧ Low break-over current.
- ✧ DO-35 package (JEDEC)
- ✧ Hermetically sealed glass
- ✧ Compression bonded construction
- ✧ All external surfaces are corrosion resistant and terminals are readily solderable
- ✧ RoHS compliant
- ✧ High reliability glass passivation insuring parameter stability and protection against junction contamination.
- ✧ Terminal: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ High temperature soldering guaranteed: 260°C/10 seconds

Maximum Ratings and Electrical Characteristics

Rating at 25°Cambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	DB3	DB3TG	Units
Typical Break-over voltage @ C=22nF	V_{BO}	32	32	V
Break-over voltage symmetry @ C=22nF	+/- V_{BO}	+/- 3	+/- 2	V
Minimum Dynamic Break-over voltage @ I_{BO} to I_F=10mA	V_{DC}	5		V
Minimum output voltage	V_O	5		V
Power dissipation on printed circuit (L=10mm) Ta=65°C	P	350		mW
Repetitive peak on-state current Tp=20uS, F=100Hz	ITRM	2		A
Break-over current @ C=22nF	I_{BO}	100	15	uA
Typical Rise time	Tr	1.5		uS
Maximum leakage current @ V_B=0.5 V_{BO} Max	I_B	10		uA
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	400 300		°C/W
Operating Temperature Range	T_J	-40 to +125		°C
Storage Temperature Range	T_{STG}	-40 to +125		°C

Notes: 1. Electrical characteristics applicable in both forward and reverse directions.

2. Connected in parallel with the devices

Diagram 1 : Current-voltage characteristics

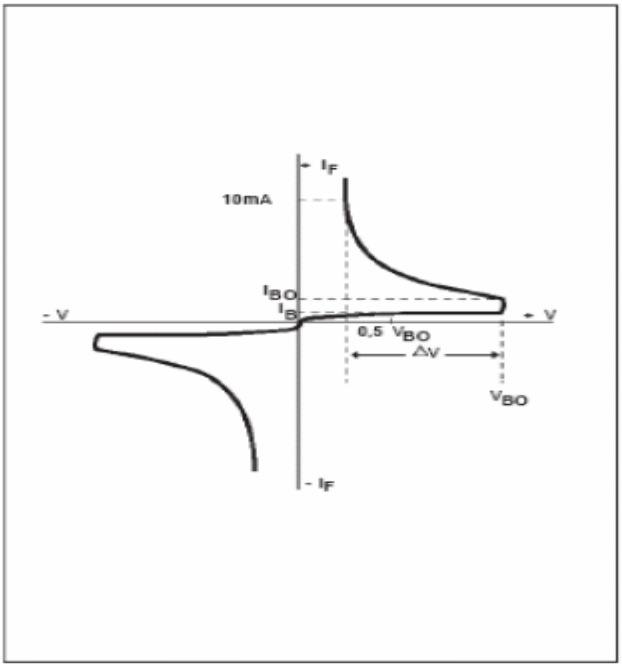


Diagram 2 : Test circuit for output voltage

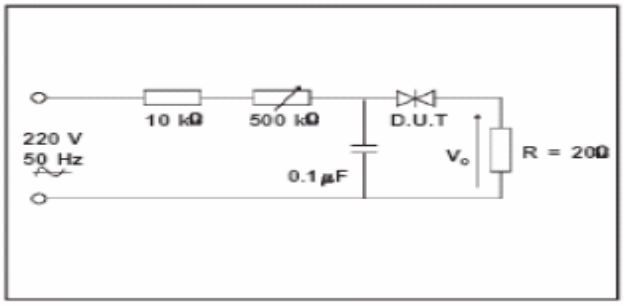


Diagram 3 : Test circuit see diagram 2 adjust R for Ip=0.5A

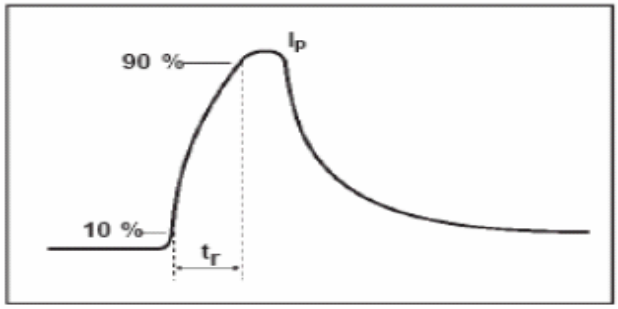


FIG 1 Power Disspation Vs Ambient Temperature (Maximum)

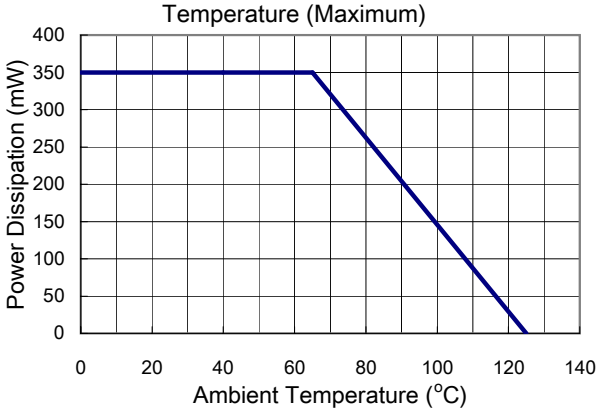


FIG 2 Relative Variation of VBO vs Junction Temperature (Typical).

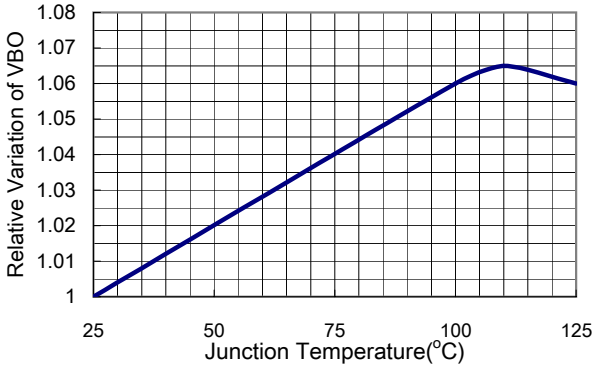


FIG 3 Peak Pulse Current vs Pulse duration