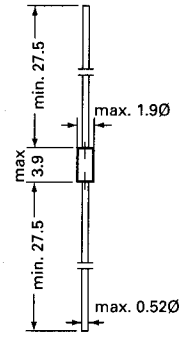
DIACS
DB-3 SILICON BIDIRECTIONAL DIAC

The glass passivated, three-layer, two terminal, axial lead, hermetically sealed diacs are designed specifically for triggering thyristors.
They demonstrate low breakover current at breakover voltage as they withstand peak pulse current. The breakover symmetry is within four volts with a typical breakover voltage of 32 volts.
These diacs are intended for use in thyristor phase control, circuits for lamp-dimming, universal-motor speed controls, and heat controls.



Glass case JEDEC DO-35

Dimensions in mm

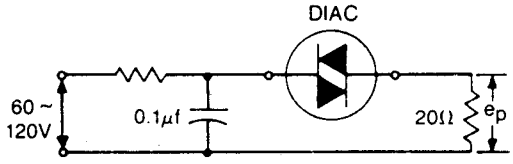
Semtech's DB-3 is a bi-directional trigger diode designed to operate in conjunction with all of Semtech Electronics' Triacs and SCR's

Storage Temperature T_{STG} - 40 °C to + 150 °C
Operating Temperture T_J - 40 °C to + 100 °C
MAXIMUM RATINGS AT 50 °C Ambient
Peak Current (10 μ sec duration, 120 cycle repetition rate) I_p ± 2 Amperes Max.
Peak output voltage e_p 3 ± volts Max.*

CHARACTERISTICS at 25 °C Ambient

Test	Symbol	Min.	Typ.	Max.	Units
Breakover Voltage	$V_{(BR)1}$ and $V_{(BR)2}$	28	32	36	Volts
Breakover Currents	$I_{(BR)1}$ and $I_{(BR)2}$	-	-	200	μ amp
Breakover Voltage Symmetry	$[V_{(BR)1}] - [V_{(BR)2}]$	-	-	3.8	Volts
Dynamic Breakover Voltage $\Delta I = [I_{BR}$ to $I_F = 10mA]$	$I \Delta V \pm I$	5	-	-	Volts
Thermal Impedance Junction To Ambient	$R_{\Phi JA}$	-	-	60	°C/W

*CIRCUIT FOR PEAK OUTPUT VOLTAGE TEST



CHARACTERISTICS at 25°C Ambient

TYPICAL DIAC-TRIAC
FULL-WAVE PHASE CONTROL CIRCUIT