

# DB-3, DB-4

## SILICON BIDIRECTIONAL DIACS

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 DB-3 32 V, DB-4 40 V. These diacs are intended for use in thyristor phase control, circuits for lamp-dimming, universal-motor speed controls, and heat controls.

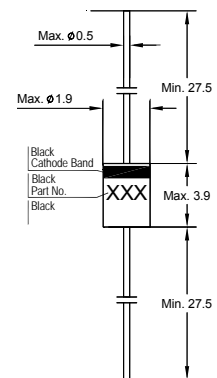
Storage Temperature Range  $T_S$  - 40 °C to +150 °C

Operating Temperature Range  $T_J$  - 40 °C to +100 °C

MAXIMUM RATINGS at 50 °C Ambient

Peak Current (10  $\mu$ s duration, 120 cycle repetition rate)  $I_P \pm 2$  A Max.

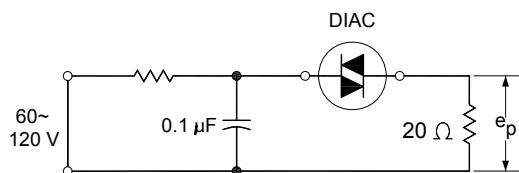
Peak output voltage  $e_P 3 \pm$  Volts Max.<sup>1)</sup>



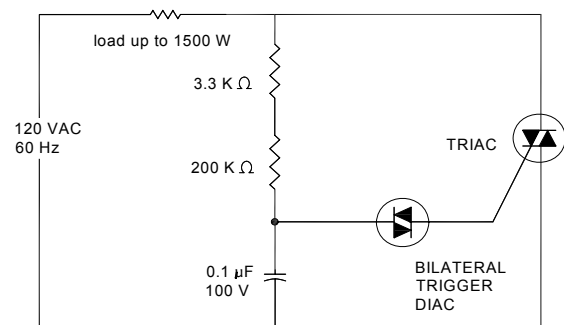
Glass Case DO-35  
Dimensions in mm

### Characteristics at $T_a = 25$ °C

Parameter	Symbol	Min.	Max.	Unit
Breakover Voltage	DB-3	28	36	V
	DB-4	35	45	
Breakover Currents	$I_{(BR)1}$ and $I_{(BR)2}$	-	200	$\mu$ A
Breakover Voltage Symmetry	$[V_{(BR)1}] - [V_{(BR)2}]$	-	3.8	V
Dynamic Breakover Voltage $\Delta I = [I_{BR} \text{ to } I_F = 10 \text{ mA}]$	$ \Delta V \pm $	5	-	V
Thermal Impedance Junction to Ambient Air	$R_{\theta JA}$	-	60	°C/W



<sup>1)</sup> CIRCUIT FOR PEAK OUTPUT VOLTAGE TEST



TYPICAL DIAC-TRIAC FULL-WAVE PHASE CONTROL CIRCUIT