

## K277 SIDAC

### General Description

The new K277 is a higher energy sidac switch for applications requiring higher current pulse current especially at low repetition rates. It is offered in a DO15X axial lead package. Voltage activation of this solid state switch is accomplished with peak voltage level of 210 to 230 Volts. The sidac is a silicon bilateral voltage triggered thyristor switch that switches on through a negative resistance region to a low on-state voltage. Conduction will continue until current is interrupted or lowered below minimum holding current of the device.

The K277 sidac has a repetitive off-state blocking voltage of 190V minimum that is ensured by glass passivated junctions for best reliability. Package is epoxy encapsulation with copper alloy leads.

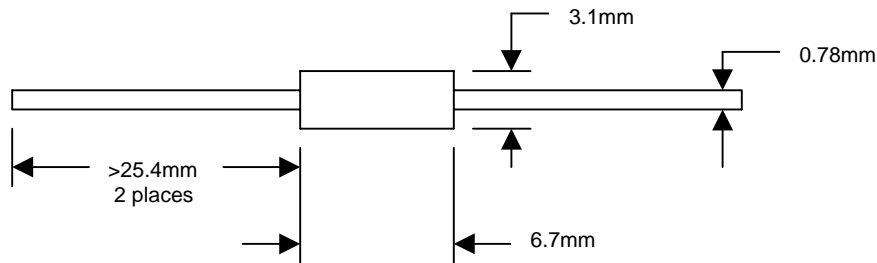
### Features

- AC circuit oriented
- DO-15X axial package
- 280A pulse current capability
- 210V to 230V triggering
- RoHS Compliant

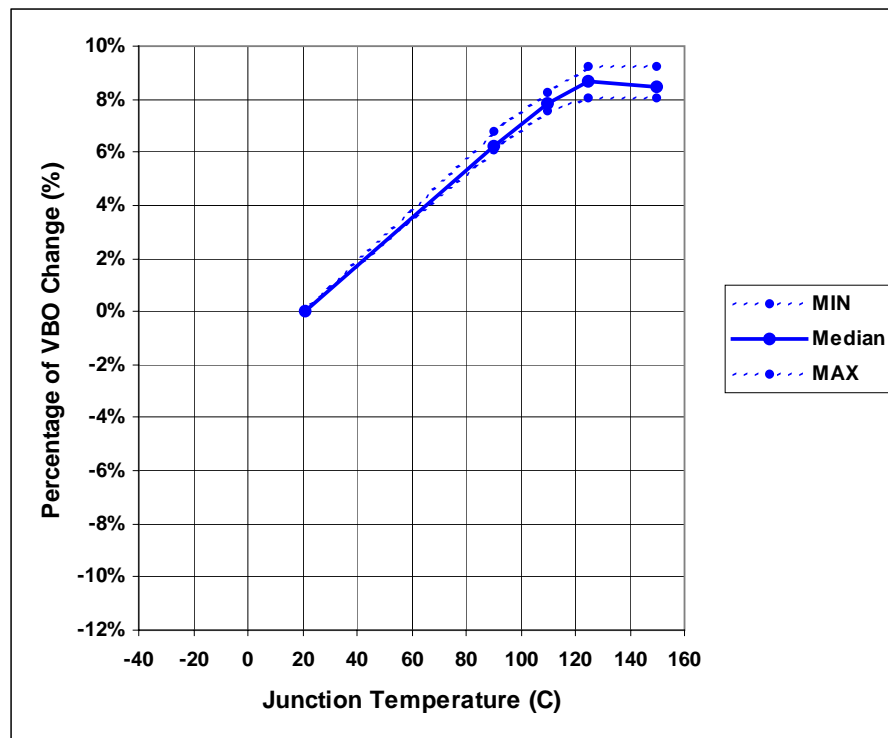
# K277 Electrical Specifications

Parameters			Min	Max	Unit
<b>V<sub>BO</sub></b>	Breakover/Trigger Voltage	50/60Hz Sine Wave	210	230	<b>V</b>
<b>V<sub>DRM</sub></b>	Repetitive Peak Off-State Voltage		190		<b>V</b>
<b>V<sub>TM</sub></b>	Peak On-State Voltage	I <sub>T</sub> = 1A		1.5	<b>V</b>
<b>I<sub>T(RMS)</sub></b>	On-State RMS Current, T <sub>J</sub> < 125C	50/60Hz Sine Wave		1	<b>A</b>
<b>I<sub>H</sub></b>	Dynamic Holding Current, R=100 Ω	50/60Hz Sine Wave		80	<b>mA</b>
<b>R<sub>S</sub></b>	Switching Resistance, R <sub>S</sub> = $\frac{(V_{BO} - V_S)}{(I_S - I_{BO})}$	50/60Hz Sine Wave		100	<b>Ω</b>
<b>I<sub>BO</sub></b>	Breakover Current	50/60Hz Sine Wave		100	<b>uA</b>
<b>I<sub>TRM</sub></b>	Pulse On-State Current, width 10usec Pulse On-State Current, width 10usec	60Hz 5Hz		120 280	<b>A</b> <b>A</b>
<b>di/dt</b>	Critical Rate of Rise of On-State Current			150	<b>A/usec</b>
<b>dv/dt</b>	Critical Rate of Rise of Off-State Voltage			1500	<b>V/usec</b>
<b>T<sub>S</sub></b>	Storage Temperature Range		-40	+150	<b>°C</b>
<b>T<sub>J</sub></b>	Max Operating Junction Temperature			+150	<b>°C</b>
<b>R<sub>θJL</sub></b>	Thermal Resistance	Junction to lead		18	<b>°C/W</b>

## DO-15X Outline Dimensions



## $V_{BO}$ Derating by Operating Temperature



# $I_{TRM}$ Derating by Frequency and Pulse Width

