

**Tefonix SIDAC Series**

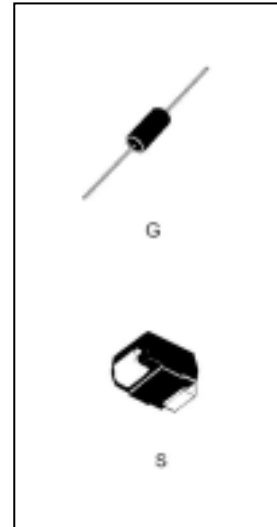
**Date: April 2008**  
**Version: Revision 2.1**

### Features

- Symmetrical characteristics
- Designed for direct interface with AC circuit
- Glass-passivated junctions insure reliable operation
- High pulse current capability
- Surface-mount or Axial lead packages

### Main Applications

- **Pulse generating circuits**  
High voltage lamp drive circuit, Natural gas ignitors, Gas oil ignitors, Fluorescent lighting ignitors, Xenon ignitors, HID lighting ignitors
- **AC switching circuits**  
Drive circuits for switching power supplies  
Voltage detection circuits
- **Overvoltage protection circuits**  
AC line surge voltage protection  
Capacitor overvoltage damage protection circuits



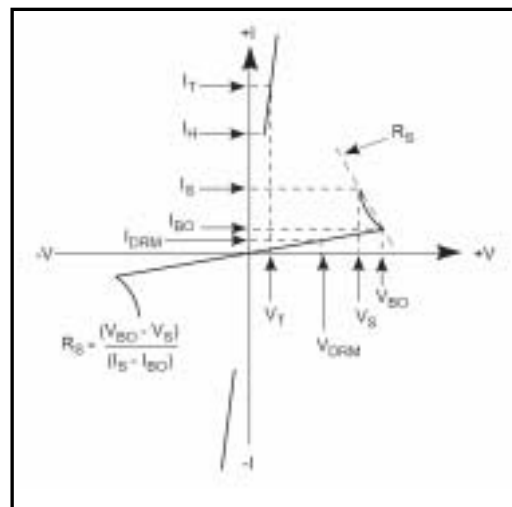
### Description

The sidac is a silicon bilateral voltage triggered switch with greater power-handling capabilities than standard diacs. Upon application of a voltage exceeding the sidac breakover voltage point, the sidac switches on through a negative resistance region to a low on-state voltage. Conduction continues until the current is interrupted or drops below the minimum holding current of the device.

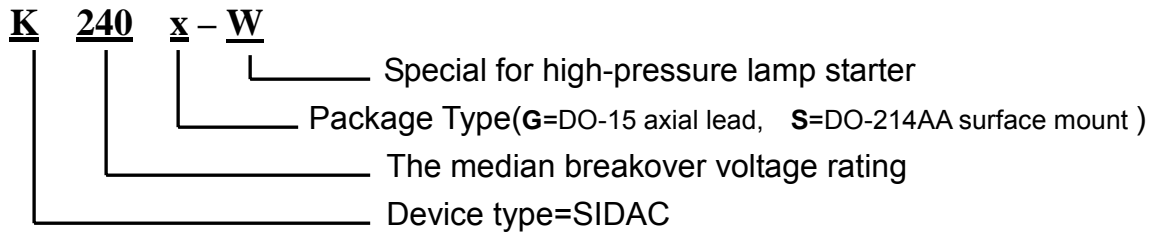
### Electrical Characteristics

Parameter	Symbol	Definitions
Repetitive Peak Off-state Voltage	$V_{DRM}$	Rated maximum (peak) continuous voltage that can be applied in the off-state conditions.
Repetitive Peak Off-state Current	$I_{DRM}$	The maximum (peak) value of off-state current that results from the application of the $V_{DRM}$ .
Breakover Voltage	$V_{BO}$	The maximum voltage across the device at the breakdown region measured under 50/60 Hz sine wave.
Breakover Current	$I_{BO}$	The instantaneous current flowing at the $V_{BO}$ .
Switching Resistance	$R_S$	The equivalent slope resistance of the breakdown region computed by $(V_{BO} - V_S) / (I_S - I_{BO})$
On-state Voltage	$V_T$	The voltage across the device in the on-state condition at $I_T$ .
On-state Current	$I_T$	The maximum rated continuous current through the device in the on-state condition.
Holding Current	$I_H$	The minimum current required to maintain the device in the on-state.
Non-repetitive Peak On-state Current	$I_{TSM}$	Rated maximum (peak) value of ac power frequency on-state surge current of 50/60 Hz sine wave which be applied for one cycle.

Note : Principal reference, JEDEC standard JESD66, Nov. 1999.



### Part Number Information



### Electrical Parameters(25°C unless otherwise noted)

Part Number	I <sub>DRM</sub> @V <sub>DRM</sub> max.		V <sub>BO</sub> min.	V <sub>BO</sub> max.	I <sub>BO</sub> max.	R <sub>S</sub> min.	V <sub>T</sub> @I <sub>T</sub> max.		I <sub>H</sub> max.	I <sub>TSM</sub> 60Hz	I <sub>TSM</sub> 50Hz
	μA	V	V	V	mA	kΩ	V	A	mA	A	A
K090 x	10	65	79	97	0.2	0.1	1.5	1.0	150	20	16.7
K105 x											
K110 x											
K120 x											
K130 x											
K140 x											
K150 x											
K200 x											
K220 x											
K240 x											
K250 x											
K300 x											
K240 x-W	10	175	220	250	0.2	0.1	3.0	1.0	150	16	13.3
K360 x-W		270	340	380							

Note 1: Special requirements are available upon request.