

Product Summary Sheet

Applications:

- ▶ Medical ultrasound imaging
- ▶ NDT applications
- ▶ Fast resettable fuses
- ▶ High side switches
- ▶ Data acquisition



8-Lead DFN (K6)



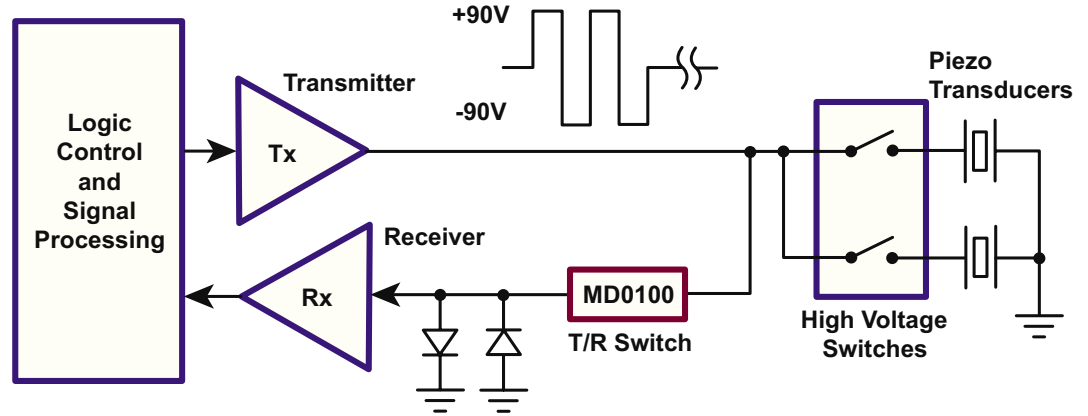
SOT-89 (N8)

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021110

MD0100 High Voltage Protection T/R Switch



Typical Application Circuit

Product Overview:

The Supertex MD0100 is a high voltage, two terminal, bi-directional, current-limiting protection device. It is designed to protect a low noise receiver from the high voltage transmit pulses in ultrasound applications and is commonly referred to as a T/R (transmit and receive) switch.

The MD0100 can be considered as a normally closed switch with a typical switching resistance of 15Ω that allows small signals to pass. Once the voltage drop across the two terminals exceeds a nominal value of ±2.0V, the device will start to turn off. In the off state, the MD0100 can withstand up to ±100V across its terminals. A small amount of current, typical of 200μA, is allowed to flow through.

The applications for the MD0100 are not limited to just ultrasound. It can also be used for resettable fuses to protect power lines, output short circuit protection, and data acquisition. The MD0100 is available in the SOT-89 package as a single channel device for ease of assembly. It is also available in a 4.0x4.0mm 8-Lead DFN package as a two channel device for high density requirements.

Features:	Benefits:
Simple, two terminal device	Easier PCB layout
Low on resistance--15Ω typical	Minimal return signal attenuation
Dual channels in 4x4 8-Lead DFN package	Higher board density

Supertex inc

MD0100

High Voltage Protection T/R Switch

Ordering Information / Availability

<u>Part Number</u>	<u>Package Option</u>	<u>Samples</u>	<u>Lead Time</u>
MD0100DK6-G	8-Lead DFN	Now	4-6 Weeks
MD0100N8-G	SOT-89	Now	4-6 Weeks

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the MD0100, please contact your local area Supertex sales office, or contact the main office in the US at:

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