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ams AG

The technical content of this austriamicrosystems datasheet is still valid.

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Keyboard Connections continued

(either VOL or +/- keys)

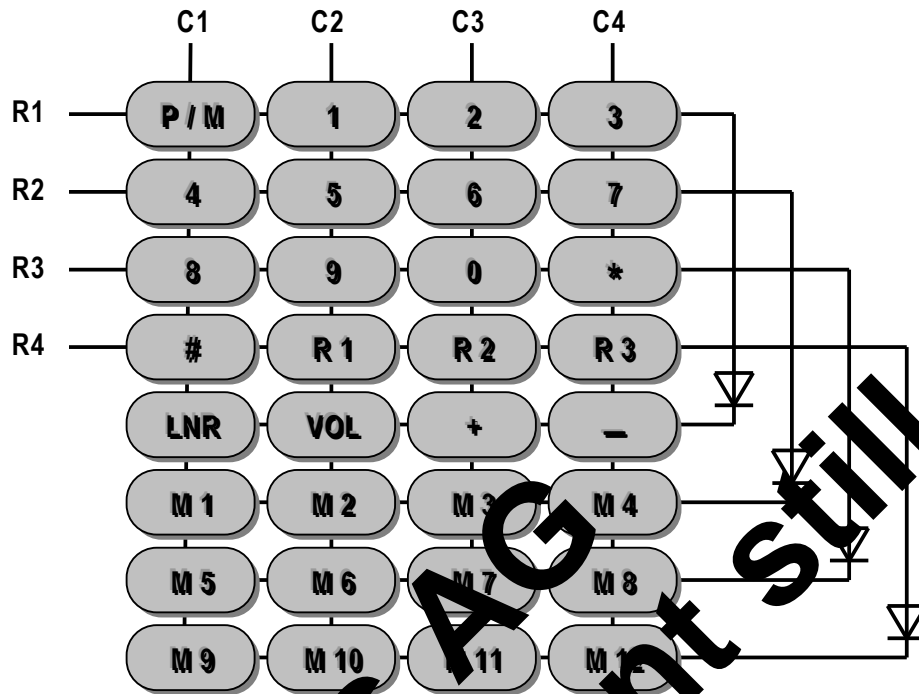


Figure Keyboard Connection AS2533

Power On Reset

The on chip power on reset circuit monitors the supply voltage (V_{DD}) during off-hook. When V_{DD} rises above approx. 1.2V, a power on reset occurs which clears the RAM.

DC Conditions

The normal operating range is from 13 mA to 100 mA. Operating range with reduced performance is from 5 mA to 13 mA (parallel operation). In the operating range all functions are operational.

At line currents below 13 mA the AS253x provides an additional slope below 15V in order to allow parallel operation (see Figure 12).

The dc characteristic (excluding diode bridge) is determined by the voltage at LI and the resistor R1 at line currents above 13 mA as follows:

$$VLS = VLI + ILINE \times R1$$

The voltage at LI is 4.5V in the normal operating range.

During pulse dialing the speech circuit and other part of the device not operating is in a power down mode to save current. The CS pin is pulled to V_{SS} in order to turn the external shunt transistor on to keep a low voltage drop at the LS pin during make periods.

AC Impedance

The ac impedance of the circuit is set by external components. The impedance can be real or complex. The ac impedance is determined as follows:

$$ZAC = 33 \cdot Z1$$

The dc value of Z1 should be 30 Ω to maintain correct dc performance.

Return loss and side tone cancellation can be determined independent of each other.

Speech Circuit

The speech circuit consists of a transmit and a receive path with dual soft clipping, mute, line loss compensation and sidetone cancellation.

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