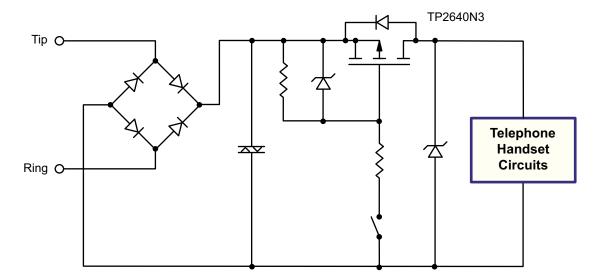
## **Application Note**

# DMOS Devices For Telecommunications

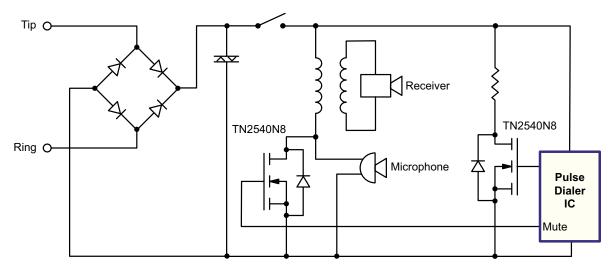
Supertex DMOS transistors provide rugged and efficient solutions for various functions for telecommunication applications. Their combined features of high breakdown voltage, low threshold voltage, low on-resistance, and low input capacitance are the basis for their design-ins. High breakdown voltage is required to withstand ring voltages, AC line power crossing, and the residuals of lightning surges. Low threshold voltage and low on-resistance ensure handset specifications are met under long loop conditions: far away from the central office. Low input capacitance allows for fast switching speeds while minimizing bias current. Supertex high voltage low threshold DMOS transistors are available in N-channel and P-channel versions. Both enhancement-mode and depletion-mode are offered. Various through hole and surface mount packages are available.

#### **Electronic Hook Switch**



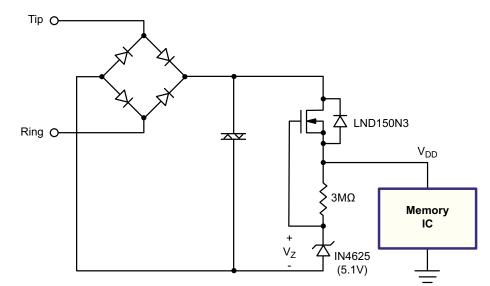
- ▶ 400V P-channel MOSFET
- -2.0V maximum threshold voltage
- Guaranteed 15Ω maximum on-resistance at V<sub>GS</sub> = -2.5V
- Negligible susceptibility to transient turn-on

#### **Pulse Dialing/Muting Function**



- 400V N-channel MOSFET
- 1.8V maximum threshold voltage
- Maximum input capacitance of 125pF

### **Memory Power Supply**



- ▶ 500V depletion mode MOSFET
- 1.0µamp maximum quiescent current
- 1.0mamp on demand output current

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