



**VN0106NE / VN0109NE**  
**Surface Mount**

*T-43-25*

**N-Channel Enhancement-Mode  
 Vertical DMOS Power FETs Quad Array**

**Ordering Information**

BV <sub>DSS</sub> / BV <sub>DGS</sub>	R <sub>DS(ON)</sub> Max	Order Number / Package
		16 Terminal Ceramic LCC
60V	3Ω	VN0106NE
90V	3Ω	VN0109NE

**Features**

- 4 Independent channels
- 4 electrically isolated die
- Commercial and Military versions available
- Freedom from secondary breakdown
- Low power drive requirement
- Low C<sub>iss</sub> and fast switching speeds
- High input impedance and high gain
- Complementary N- and P-Channel devices

**Applications**

- Motor control
- Convertors
- Amplifiers
- Switches
- Power supply circuits
- Driver (Relays, Hammers, Solenoids, Lamps, Memories, Displays, Bipolar Transistors, etc.)

**Thermal Characteristics**

Package	Ceramic LCC
I <sub>D</sub> continuous & I <sub>DR</sub> (single die)	0.32A
I <sub>D</sub> pulsed* & I <sub>DRM</sub> †	1.75A
Power Dissipation @ T <sub>C</sub> = 25°C‡	0.6W
θ <sub>JA</sub> (°C/W)	275
θ <sub>JC</sub> (°C/W)	208

\* Pulse test 300 μS pulse, 2% duty cycle.  
 † Total for package.

**Advanced DMOS Technology**

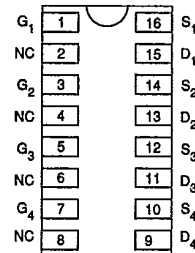
These enhancement-mode (normally-off) power transistors utilize a vertical DMOS structure and Supertex's well-proven silicon-gate manufacturing process. This combination produces devices with the power handling capabilities of bipolar transistors and with the high input impedance and negative temperature coefficient inherent in MOS devices. Characteristic of all MOS structures, these devices are free from thermal runaway and thermally-induced secondary breakdown.

Supertex Vertical DMOS Power FETs are ideally suited to a wide range of switching and amplifying applications where high breakdown voltage, high input impedance, low input capacitance, and fast switching speeds are desired.

**Electrical Characteristics**

Refer to VN01A Data Sheet for detailed characteristics.

**Pin Configuration**



top view  
 16-pin LCC