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

Ordering Information

BV_{DSS} / BV_{DGS}	$R_{DS(ON)}$ (max)	Order Number / Package	
		14-Pin P-Dip	14-Pin C-Dip*
40V	3Ω	VN0104N6	VN0104N7
60V	3Ω	VN0106N6	VN0106N7

*14-pin Side Brazed Ceramic Dip.

Features

- ☐ 4 independent channels
- ☐ 4 electrically isolated die
- ☐ Commercial and Military versions available
- ☐ Freedom from secondary breakdown
- ☐ Low power drive requirement
- ☐ Low C_{ISS} and fast switching speeds
- ☐ High input impedance and high gain

Applications

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

Thermal Characteristics

Package	Plastic DIP	Ceramic DIP
I_D continuous & I_{DR} (single die)	0.56A	0.7A
I_D pulsed* & I_{DRM}*	2.0A	2.0A
Power Dissipation @ T_C = 25°C‡	2W	3W
θ_{ja} (°C/W)	110	83.3
θ_{jc} (°C/W)	62.5	41.6

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

Advanced DMOS Technology

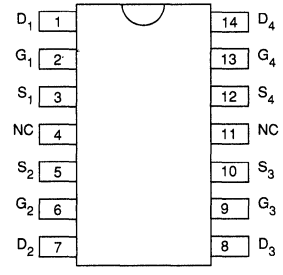
These enhancement-mode (normally-off) power transistors utilize a vertical DMOS structure and Supertex's well-proven silicon-gate manufacturing process. This combination produces devices with the power handling capabilities of bipolar transistors and with the high input impedance and negative temperature 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

14-pin DIP