

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

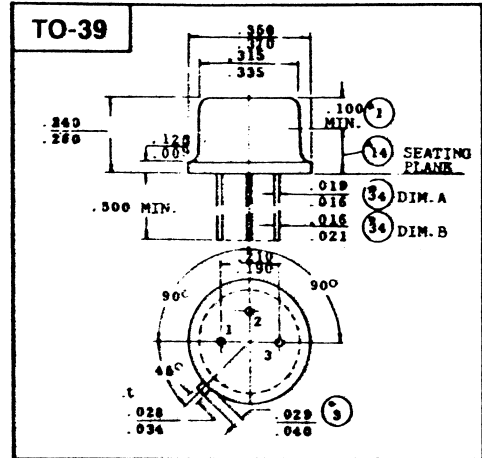
TELEPHONE: (201) 376-2922
 (212) 227-6005
 FAX: (201) 376-8960

TMOS
SWITCHING TRANSISTOR
N-CHANNEL — ENHANCEMENT

2N6659
2N6660
2N6661

MAXIMUM RATINGS

| Rating | Symbol | 2N6659 | 2N6660 | 2N6661 | Unit |
|--------------------------------------------------------------------------|-----------------------------------|----------------------------|-------------|--------|----------------|
| Drain-Source Voltage | V _{DS} | 35 | 60 | 90 | Vdc |
| Drain-Gate Voltage | V _{DG} | 35 | 60 | 90 | Vdc |
| Gate-Source Voltage | V _{GS} | | 30 | | Vdc |
| Drain Current — Continuous (1) | I _D | | 2.0 | | Adc |
| Pulsed (2) | I _{DM} | | 3.0 | | |
| | | 2N6659 2N6660 2N6661 | | | |
| Total Device Dissipation @ T _C = 25°C Derate above 25°C | P _D | 6.25 | | | Watts mW °C |
| Total Device Dissipation @ T _A = 25°C Derate above 25°C | P _D | — | 1.0 | 8.0 | Watts mW °C |
| Operating and Storage Junction Temperature Range | T _J , T _{stg} | | -55 to +150 | | °C |



(1) The Power Dissipation of the package may result in a lower continuous drain current.
 (2) Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

| Characteristic | Symbol | Min | Typ | Max | Unit |
|--------------------------------------------------------------------------------------------|----------------------|----------------|-------------------|-------------------|-------|
| OFF CHARACTERISTICS | | | | | |
| Zero-Gate-Voltage Drain Current (V _{GS} = Maximum Rating, V _{GS} = 0) | I _{DSS} | — | — | 10 | μAdc |
| Gate-Body Leakage Current (V _{GS} = 15 V, V _{DS} = 0) | I _{GSS} | — | — | 100 | nAdc |
| Drain-Source Breakdown Voltage (V _{GS} = 0, I _D = 10 μA) | V _{(BR)DSX} | 35 60 90 | — — — | — — — | Vdc |
| ON CHARACTERISTICS(1) | | | | | |
| Gate Threshold Voltage (V _{GS} = V _{GS} , I _D = 1.0 mA) | V _{GS(th)} | 0.8 | 1.4 | 2.0 | Vdc |
| Drain-Source On-Voltage (V _{GS} = 10 V, I _D = 1.0 A) | V _{DS(on)} | — | — | 1.8 3.0 4.0 | Vdc |
| (V _{GS} = 5.0 V, I _D = 0.3 A) | | — | 0.8 0.9 0.9 | 1.5 1.5 1.6 | |
| Static Drain-Source On Resistance (V _{GS} = 10 Vdc, I _D = 1.0 Adc) | r _{DS(on)} | — | — | 1.8 3.0 4.0 | Ohms |
| On-State Drain Current (V _{GS} = 25 V, V _{GS} = 10 V) | I _{D(on)} | 1.0 | 2.0 | — | Amps |
| SMALL-SIGNAL CHARACTERISTICS | | | | | |
| Input Capacitance (V _{DS} = 25 V, V _{GS} = 0, f = 1.0 MHz) | C _{iss} | — | 30 | 50 | pF |
| Reverse Transfer Capacitance (V _{DS} = 25 V, V _{GS} = 0, f = 1.0 MHz) | C _{rss} | — | 3.6 | 10 | pF |
| Output Capacitance (V _{DS} = 25 V, V _{GS} = 0, f = 1.0 MHz) | C _{oss} | — | 20 | 40 | pF |
| Forward Transconductance (V _{GS} = 25 V, I _D = 0.5 A) | g _{fs} | 170 | — | — | mmhos |



Quality Semi-Conductors