

New Jersey Semi-Conductor Products, Inc.

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

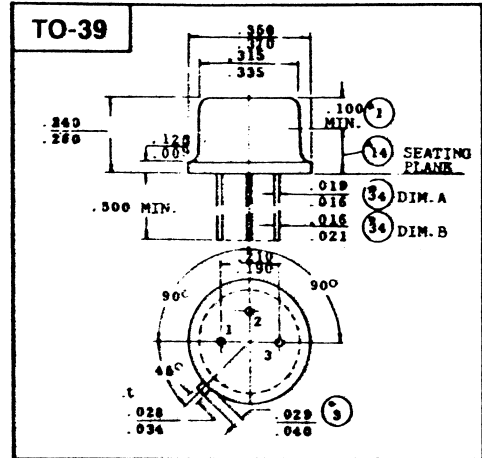
TELEPHONE: (201) 376-2922
 (212) 227-6005
 FAX: (201) 376-8960

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 _{DS} = 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