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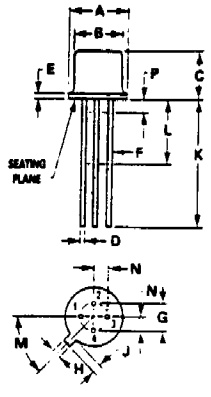
MFE201 thru MFE203

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DSX}	20	Vdc
Drain-Gate Voltage	V_{DG1} V_{DG2}	30 30	Vdc
Gate Current	I_{G1} I_{G2}	±10 ±10	mAdc
Drain Current — Continuous	I_D	50	mAdc
Total Power Dissipation @ T_A = 25°C Derate above 25°C	P_D	360 2.4	mW mW/°C
Total Power Dissipation @ T_C = 25°C Derate above 25°C	P_D	1.2 8.0	Watt mW/°C
Storage Channel Temperature Range	T_{stg}	−65 to +200	°C
Junction Temperature Range	T_J	−65 to +175	°C
Lead Temperature, 1/16" From Seated Surface for 10 Seconds	T_L	300	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Drain-Source Breakdown Voltage (I_D = 10 μAdc, V_S = 0, V_{G1S} = V_{G2S} = −5.0 Vdc)	$V_{(BR)DSX}$	20	—	—	Vdc
Gate 1 — Source Breakdown Voltage(1) (I_{G1} = ±10 mAdc, V_{G2S} = V_{DS} = 0)	$V_{(BR)G1SO}$	±6.0	±12	±30	Vdc
Gate 2 — Source Breakdown Voltage(1) (I_{G2} = ±10 mAdc, V_{G1S} = V_{DS} = 0)	$V_{(BR)G2SO}$	±6.0	±12	±30	Vdc
Gate 1 to Source Cutoff Voltage (V_{DS} = 15 Vdc, V_{G2S} = 4.0 Vdc, I_D = 20 μAdc)	$V_{G1S(off)}$	−0.5	−1.5	−5.0	Vdc
Gate 2 to Source Cutoff Voltage (V_{DS} = 15 Vdc, V_{G1S} = 0, I_D = 20 μAdc)	$V_{G2S(off)}$	−0.2	−1.4	−5.0	Vdc
Gate 1 Leakage Current (V_{G1S} = ±5.0 Vdc, V_{G2S} = V_{DS} = 0) (V_{G2S} = −5.0 Vdc, V_{G2S} = V_{DS} = 0, T_A = 150°C)	I_{G1SS}	— —	±0.04 —	±10 −10	nAdc μAdc
Gate 2 Leakage Current (V_{G2S} = ±5.0 Vdc, V_{G1S} = V_{DS} = 0) (V_{G2S} = −5.0 Vdc, V_{G1S} = V_{DS} = 0, T_A = 150°C)	I_{G2SS}	— —	±0.05 —	±10 −10	nAdc μAdc
ON CHARACTERISTICS					
Zero-Gate Voltage Drain Current(2) (V_{DS} = 15 Vdc, V_{G1S} = 0, V_{G2S} = 4.0 Vdc) MFE201, MFE202 MFE203	I_{DSS}	6.0 3.0	13 11	30 15	mAdc
SMALL-SIGNAL CHARACTERISTICS					
Forward Transfer Admittance(3) (V_{DS} = 15 Vdc, V_{G2S} = 4.0 Vdc, V_{G1S} = 0, f = 1.0 kHz) MFE201, MFE202 MFE203	$\|y_{fs}\|$	8.0 7.0	12.8 12.5	20 15	mmhos
Input Capacitance (V_{DS} = 15 Vdc, V_{G2S} = 4.0 Vdc, I_D = I_{DSS}, f = 1.0 MHz)	C_{iss}	—	4.3	—	pF
Output Capacitance (V_{DS} = 15 Vdc, V_{G2S} = 4.0 Vdc, I_D = I_{DSS}, f = 1.0 MHz)	C_{oss}	—	1.7	—	pF
Reverse Transfer Capacitance (V_{DS} = 15 Vdc, V_{G2S} = 4.0 Vdc, I_D = 10 mAdc, f = 1.0 MHz)	C_{rss}	0.005	0.014	0.03	pF



DIM	MILLIMETERS MIN	MILLIMETERS MAX	INCHES MIN	INCHES MAX
A	5.31	5.84	0.209	0.230
B	4.52	4.95	0.178	0.195
C	4.32	5.33	0.170	0.210
D	0.41	0.53	0.016	0.021
E	—	0.76	—	0.030
F	0.41	0.48	0.016	0.019
G	2.54 BSC		0.100 BSC	
H	0.91	1.17	0.036	0.046
J	0.71	1.22	0.028	0.048
K	12.70	—	0.500	—
L	6.35	—	0.250	—
M	45° BSC		45° BSC	
N	1.27 BSC		0.050 BSC	
P	—	1.27	—	0.050

Quality Semi-Conductors

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