



enhancement-type p-channel MOSFET designed for . . .

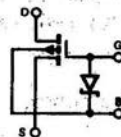
Performance Curves MB
See Section 4

- Audio Amplifiers
- Choppers
- Commutators

ABSOLUTE MAXIMUM RATINGS (25°C)

Drain-to-Source Voltage	-25 V
Gate-to-Source Voltage	-25 V
Gate-to-Drain Voltage	-25 V
Drain Current	-50 mA
Gate Current (Forward Direction For Zener Clamp)	+0.1 mA
Storage Temperature	-65 to +150°C
Operating Junction Temperature Range	-55 to +125°C
Total Dissipation at 25°C Ambient Temperature (Derate 2.25 mW/°C)	225 mW
Lead Temperature (1/16" from case for 10 seconds)	260°C

TO-72
See Section 5



ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic	Min	Typ	Max	Unit	Test Conditions	
S T A T I C	1	I _{GSS} Gate Leakage Current			-1	nA	V _{GS} = -15 V, V _{DS} = V _{BS} = 0	
	2	BV _{DSS} Drain-Source Breakdown Voltage	-25			V	I _D = -10 μA, V _{GS} = V _{BS} = 0	
	3	V _{GS(th)} Gate Threshold Voltage	-3		-6	V	V _{GS} = V _{DS} , I _D = -10 μA, V _{BS} = 0	
	4	I _{D(off)} Drain Cutoff Current			-10	nA	V _{DS} = -20 V, V _{GS} = V _{BS} = 0	
	5	I _{D(on)} Drain Current	-3			mA	V _{GS} = V _{DS} = -10 V, V _{BS} = 0	
	6	r _{DS(on)} Drain-Source ON Resistance		150		Ω	V _{GS} = -15 V, I _D = -1 mA, V _{BS} = 0	
D Y N	7	g _{fs} Common-Source Forward Transconductance	1,000			μmho	V _{GS} = V _{DS} = -10 V, V _{BS} = 0	f = 1 kHz
	8		1,000		f = 10 MHz			
	9	C _{gs} Gate-Source Capacitance			4	pF	V _{GS} = V _{DS} = -10 V, V _{BS} = 0	f = 1 MHz
	10	C _{gd} Gate-Drain Capacitance			4			
	11	C _{ds} Drain-Source Capacitance		0.15				

MB



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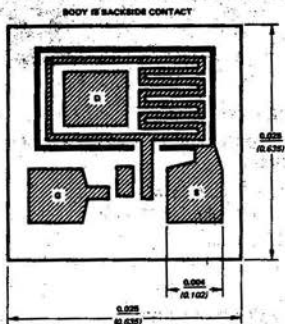
- Audio and RF Amplifiers
- Analog Switches
- Logic Circuits
- Multiplexers

BENEFITS:

- $10^{10}\Omega$ Input Resistance
- Integrated Zener Clamp Protects the Gate
- Source Law Transfer Characteristics
- Normally OFF
- Low $I_{D(off)}$ and $I_{S(off)}$

TYPE	PACKAGE
Single	TO-72
Single	Chip

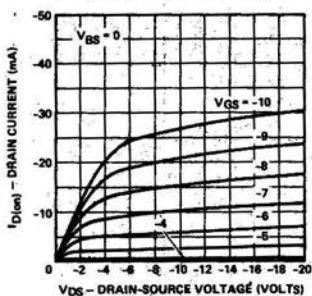
PRINCIPAL DEVICES
MEM511C, M103
MEM511CCHP, M103CHP



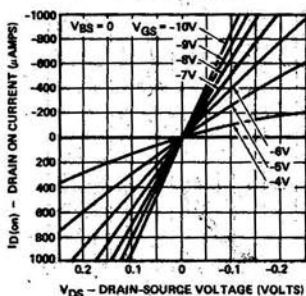
ALL DIMENSIONS IN INCHES.
(ALL DIMENSIONS IN MILLIMETERS.)

PERFORMANCE CURVES (25°C unless otherwise noted)

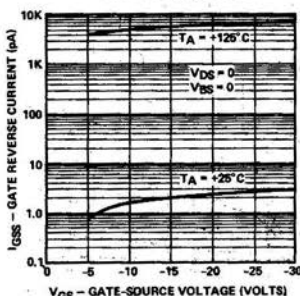
Output Characteristic



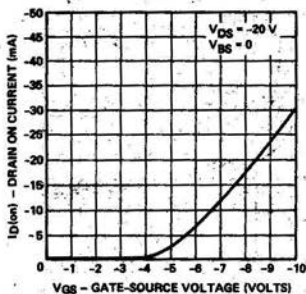
Low Voltage Output Characteristics



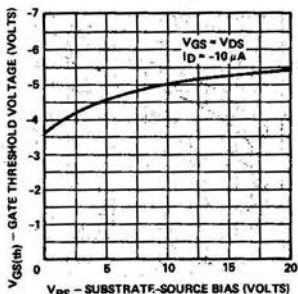
Gate Leakage Current vs Gate-Source Bias



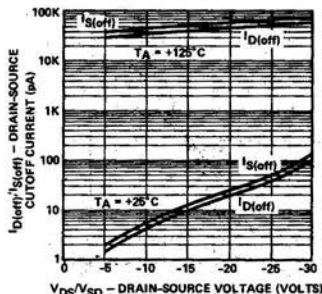
Transfer Characteristic



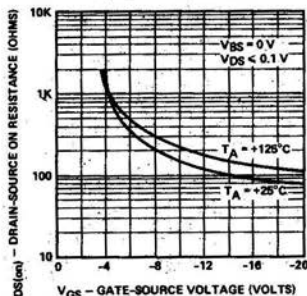
Gate Threshold Voltage vs Substrate Bias



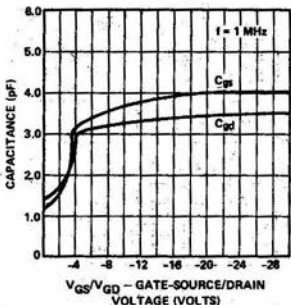
Source-Drain Leakage Currents vs Voltage



Drain-Source ON State Resistance vs Gate-Source Bias



Gate Capacitance vs Voltage



Substrate Capacitance vs Voltage

