

## Single Driver for GaAs FET Switches and Attenuators

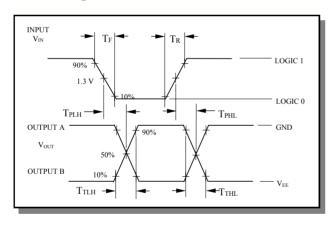
Rev. V3

### AC & DC Characteristics Over Guaranteed Operating Range

Symbol	Parameter	Test Co	nditions	Units	Min	Тур	Max
VIH	Input HIGH Voltage	Guaranteed HIGH Input Voltage		V	2.0	_	-
V <sub>IL</sub>	Input LOW Voltage	Guaranteed LOW Input Voltage		V	-	_	0.8
V <sub>OH</sub>	Output HIGH Voltage	I <sub>OH</sub> = -1 mA	V <sub>EE</sub> = Max	V	- 0.1	_	-
V <sub>OL</sub>	Output LOW Voltage	I <sub>OL</sub> = 1 mA	V <sub>EE</sub> = Max	V	_	_	V <sub>EE</sub> + 0.1
I <sub>IN</sub>	Input Leakage Current	V <sub>IN</sub> = V <sub>CC</sub> or GND	V <sub>EE</sub> = Min	μA	-1.0	0	1.0
I <sub>cc</sub>	Quiescent Supply Current	V <sub>CC</sub> = Max	$V_{EE} = Min$ $V_{IN} = V_{CC} \text{ or GND}$	μA	_	_	400
T <sub>PHL</sub> , T <sub>PLH</sub>	Propagation Delay	Guaranteed -40° C to + 85° C		nS	_	_	50
T <sub>THL</sub> , T <sub>TLH</sub>	Output Transition Time	Guaranteed -40° C to + 85° C		nS	_	_	25
	Delay Skew, Output A to Output B	Guaranteed -40° C to + 85° C		nS	_	_	8

See Switching Wave Forms for the definition of the switching terms. Supplies must be by-passed with .01  $\mu$ F Capacitors.

### **Switching Waveforms**



### **Absolute Maximum Ratings<sup>2,3</sup>**

Parameter	Absolute Maximum		
V <sub>CC</sub>	5V to + 6.0 V		
V <sub>EE</sub>	- 6.0 V to5 V		
V <sub>CC</sub> - V <sub>EE</sub>	12 V		
V <sub>IN</sub> <sup>4</sup>	V <sub>CC</sub> + .5 V		
V <sub>OUT</sub>	V <sub>EE</sub> 5 V		
Storage Temperature	-65°C to +150°C		

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.
- Standard CMOS TTL interface, latch-up will occur if logic signal is applied prior to power supply.

## **Handling Procedures**

Please observe the following precautions to avoid damage:

#### **Static Sensitivity**

Silicon Integrated Circuits are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

#### **Truth Table**

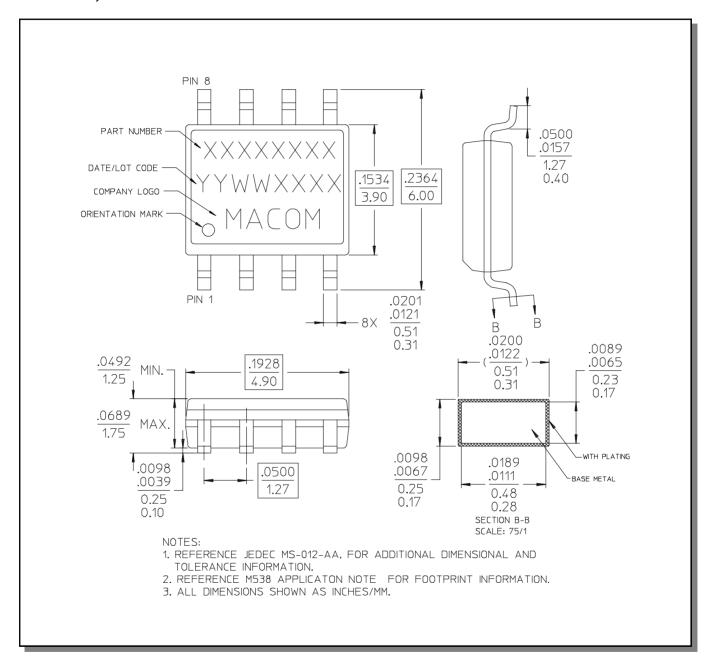
Input	Outputs			
V <sub>IN</sub>	Α	В		
0	V <sub>EE</sub>	GND		
1	GND	V <sub>EE</sub>		



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### Lead-Free, SOIC-8<sup>†</sup>



<sup>&</sup>lt;sup>†</sup> Reference Application Note M538 for lead-free solder reflow recommendations.

# MADRCC0005



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