

CT3078M

Interface Receiver for MIL-STD-1553

Contact Factory for Availability

FEATURES

- Meets MIL-STD-1553 and MDC A3818 Interface Specifications
- Compatible with CT2077M/CT3077M Line Drivers
- TTL Compatible
- Thick Film Hybrid Technology
- Custom Monolithic Circuit for Improved Reliability
- See Figure 4 for Screening Procedure

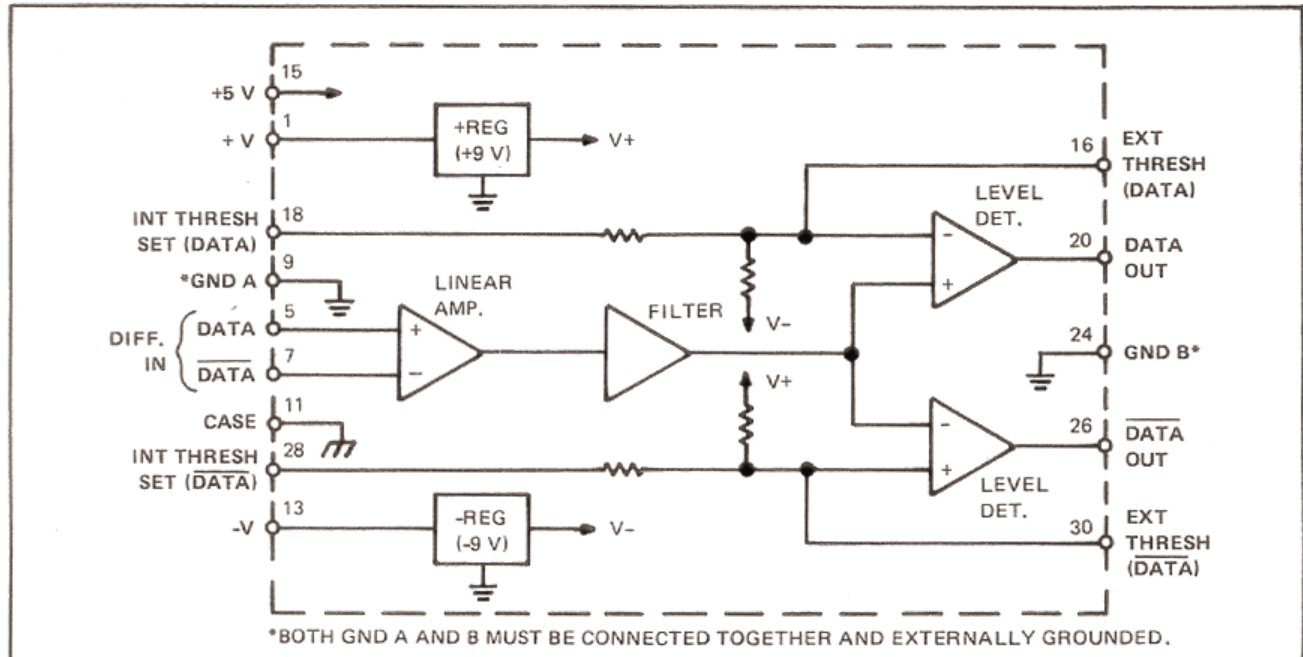


FIGURE 1. FUNCTIONAL DIAGRAM

DESCRIPTION

The CT3078M accepts bi-phase differential data at the input and produces two TTL signals at the output. The outputs are DATA and $\overline{\text{DATA}}$ and represent positive and negative excursions, respectively, of the input beyond a predetermined threshold. See Figure 2 for receiver logic waveforms.

The positive and negative thresholds may be internally set by grounding the appropriate pins, or externally set

with resistors. The preset internal thresholds will detect DATA BUS signals exceeding 1 volt p-p and ignore signals less than 0.5 volt p-p when used with a 1:1 transformer. (See CT2077M description for a suitable transformer and typical connection.)

The CT3078M meets the requirements of MDC A3818 as well as MIL-STD-1553A and B.

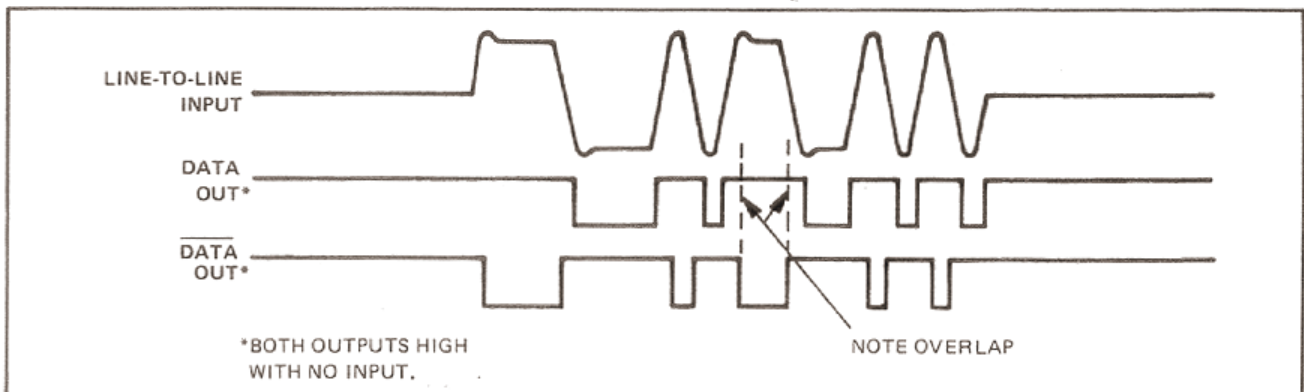


FIGURE 2. RECEIVER LOGIC WAVEFORMS

SPECIFICATIONS

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Maximum Power Requirements: +5 V ± 5% @ 40 mA
 (+12 V to +15 V) ± 3% @ 35 mA
 (-12 V to -15 V) ± 3% @ 40 mA

Input Characteristics: 330 kHz to 1 MHz

CMRR >40 dB

Input Level Up to 40 V p-p differential

Threshold Level 750 mV p-p nominal, internal (pins 18 and 28 grounded)

Optional Threshold Adjustment 0 to 2 V p-p (0 to 10 K ohm external between pins 16 and 30, and ground)

Input Impedance > 4 K ohm differential

Output Characteristics
 (DATA, DATA): Standard "LS" TTL

NOTE: For no input, both DATA and DATA outputs remain high.

Package: See Figure 3

Thermal Requirements: Case must be held to 125°C maximum

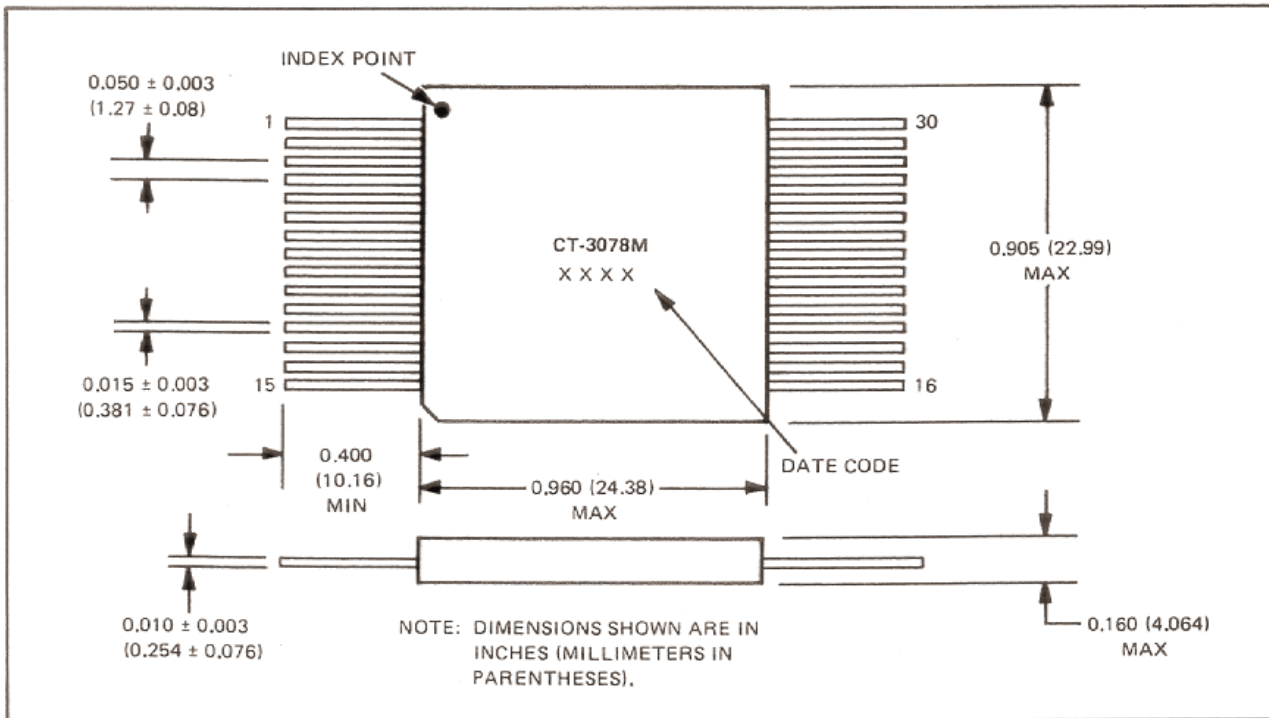


FIGURE 3. MECHANICAL OUTLINE

CT3078M			
TEST/INSPECTION	REQUIREMENT	METHOD MIL-STD-883	CONDITION
Internal Visual	100%	2017	N/A
Customer Pre-seal Inspection	When Specified	N/A	As Specified
Pre-seal Bake	24 Hrs @ 150 ±5°C	N/A	N/A
Seal/Mark	100%	---	---
Fine Leak	100%	1014	1X10 ⁻⁷ cc/sec
Stabilization Cycle	100%	1008	C
Temperature Cycle	100%	1010	C
Centrifuge	Y1 Axis	2001	A
Pind Test	When Specified	2020	A or B as Specified
Fine Leak	100%	1014	1X10 ⁻⁷ cc/sec
Gross Leak	100%	1014	N/A
Electrical Test	CTI ATP 100%	N/A	25°C
Burn-In	T _{CASE} = 125°C	1015	---
Final Test/Group A	CTI ATP 100%	---	+25°C, -55°C, +125°C Case
External Visual	100%	2009	---
Customer Inspection	As Required	---	---

FIGURE 4. TESTING AND SCREENING PROCEDURE