JANUARY, 1969

DUAL SENSE AMPLIFIERS

MC1414 L (0 to +75°C)
MC1514 L (−55 to +125°C)

. . . the MC1414 and MC1514 are monolithic dual differential voltage comparators designed for use in level detection, low-level sensing, and memory applications.

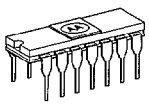
- Two Separate Outputs
- Strobe Capability
- High Output Sink Current — 2.8 mA min *Each* Comparator
- Differential Input Characteristics:
  Input Offset Voltage = 1.0 mV
  Offset Voltage Drift = 3.0 μV/°C
- Short Propagation Delay Time — 40 ns
- Output Compatible with All Saturating Logic Forms
  V_{out} = +3.2 V to −0.5 V typical

MAXIMUM RATINGS (T_A = 25°C UNLESS OTHERWISE NOTED)

RATING	SYMBOL	VALUE	UNIT
Power Supply Voltage	V^+ V^-	+14 −7.0	Vdc Vdc
Differential Input Signal	V_{in}	±5.0	Volts
Common Mode Input Swing	CMV_{in}	±7.0	Volts
Peak Load Current	I_L	10	mA
Power Dissipation (package limitation) Ceramic Dual In-Line Package Derate above T_A = 50°C	P_D	 750 6.0	 mW mW/°C
Operating Temperature Range MC1414 MC1514	T_A	 0 to +75 −55 to +125	 °C
Shortage Temperature Range	T_{stg}	−65 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

TYPE	V+ (Vdc)	V− (Vdc)	V_{io} (mV)	A_{VOL} (V/V)	V_{OH} (Vdc)	V_{OL} (Vdc)	t_{pd} (ns)	CMV_{in} (Vdc)	TCV_{io} (μV/°C)
MC1414	+12	−6.0	1.5	1500	3.2	−0.5	40	±5.0	5.0
MC1514	+12	−6.0	1.0	1700	3.2	−0.5	40	±5.0	3.0



L SUFFIX
CERAMIC PACKAGE
CASE 605C
TO-116