

✓ 54/7409 011044
 ✓ 54S/74S09 010110
 ✓ 54LS/74LS09 010112

QUAD 2-INPUT AND GATE
 (With Open-Collector Output)

ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		V _{CC} = +5.0 V ±5%, T _A = 0°C to +70°C	V _{CC} = +5.0 V ±10%, T _A = -55°C to +125°C	
Plastic DIP (P)	A	7409PC, 74S09PC 74LS09PC		9A
Ceramic DIP (D)	A	7409DC, 74S09DC 74LS09DC	5409DM, 54S09DM 54LS09DM	6A
Flatpak (F)	A	7409FC, 74S09FC 74LS09FC	5409FM, 54S09FM 54LS09FM	3I

INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

PINS	54/74 (U.L.) HIGH/LOW	54/74S (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	1.25/1.25	0.5/0.25
Outputs	OC**/10	OC**/12.5	OC**/5.0 (2.5)

DC AND AC CHARACTERISTICS: See Section 3*

SYMBOL	PARAMETER	54/74	54/74S	54/74LS	UNITS	CONDITIONS	
		Min Max	Min Max	Min Max			
I _{CC} H	Power Supply Current	21	32	4.8	mA	V _{IN} = Open	V _{CC} = Max
I _{CC} L		33	57	8.8		V _{IN} = Gnd	
t _{PL} H	Propagation Delay	32	2.0 10	20	ns	Fig. 3-2, 3-5	
t _{PH} L		24	2.0 10	15			

*DC limits apply over operating temperature range; AC limits apply at T_A = +25°C and V_{CC} = +5.0 V.
 **OC — Open Collector

CONNECTION DIAGRAM
 PINOUT A

