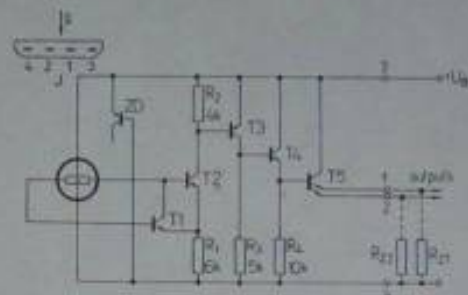
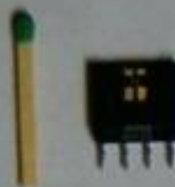


Hall-IC MH1SS1

MONOLITHIC INTEGRATED CIRCUIT FOR CONTACTLESS
SWITCHES WITH MAGNETIC FIELD CONTROL
MONOLITHISCHER INTEGRIERTER SCHALTKREIS
FÜR MAGNETISCH BETÄTIGTE KONTAKTLOSE SCHALTER

MH1SS1

Maximum ratings:	Grenzwerte:				
Supply voltage	Speisespannung	U_{DD}	5 ± 0.1	V	
Output current	Ausgangsstrom	$I_{1/4}$	max 10	mA	
		$I_{2/4}$	max 10	mA	
Output current with parallel connected outputs	Ausgangsstrom mit parallel-gekoppelten Ausgängen	$I_{1/4} \parallel I_{2/4}$	max 20	mA	
Operating temperature range	Umgebungstemperaturbereich	T_a	max $0 \dots +55$	$^{\circ}\text{C}$	
Storage temperature range	Lagertemperaturbereich	T_{H2}	max $-55 \dots +55$	$^{\circ}\text{C}$	



CHARACTERISTIC DATA: KENNDATEN: $T_a = 25^{\circ}\text{C}$

Output voltage - L level	Ausgangsspannung - L-Zustand			
$U_{1/4} = 5 \pm 0.01 \text{ V}, R_L = 2.5 \text{ k}\Omega$		$U_{1/4}$	< 0.25	V
$U_{2/4} = 5 \pm 0.01 \text{ V}, R_L = 2.5 \text{ k}\Omega$		$U_{2/4}$	< 0.25	V
Output voltage - H level	Ausgangsspannung - H-Zustand			
$U_{1/4} = 5 \pm 0.01 \text{ V}, I_L = 1 \dots 10 \text{ mA}$		$U_{1/4}$	≈ 3.15	V
$U_{2/4} = 5 \pm 0.01 \text{ V}, I_L = 1 \dots 10 \text{ mA}$		$U_{2/4}$	≈ 3.15	V
Magnetic induction - H level	Magnetische Induktion - H-Zustand	B	$0.01 \dots 0.08$	T
$U_{1/4} = 5 \pm 0.01 \text{ V}, I_{L1} = I_{L2} = 1 \dots 10 \text{ mA}$				
Magnetic induction - L level	Magnetische Induktion - L-Zustand	B	< 0.015	T
$U_{1/4} = 5 \pm 0.01 \text{ V}, R_{L1} = R_{L2} = 2.5 \text{ k}\Omega$				
Magnetic hysteresis	Magnetische Hysterese	ΔB	< 0.015	T
$U_{1/4} = 5 \pm 0.01 \text{ V}, I_{L1} = I_{L2} = 1 \dots 10 \text{ mA}$				
Insulatory output current	Ausgang-Isolationsstrom			
$U_{1/4} = 5 \text{ V}$		I_{L22}	≈ 1	mA
$U_{2/4} = 5 \text{ V}$		I_{L11}	≈ 1	mA
Switching time - rise time	Schaltzeit - Anstiegszeit	t_r	< 0.5	μs
$U_{1/4} = 5 \pm 0.01 \text{ V}, I_{L1} = I_{L2} = 1 \dots 10 \text{ mA}$				
Switching time - fall time	Schaltzeit - Abfallzeit	t_f	< 10	μs
$U_{1/4} = 5 \pm 0.01 \text{ V}, I_{L1} = I_{L2} = 1 \dots 10 \text{ mA}$				
Supply current - H level	Speisestrom - H-Zustand	I_{DD}	< 15	mA
$U_{1/4} = 5 \pm 0.01 \text{ V}, R_{L1} = R_{L2} = 2.5 \text{ k}\Omega$				

