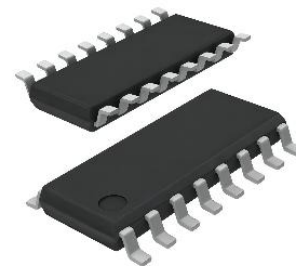


HX2003-S/HX2003-P

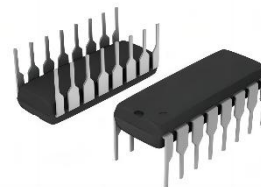
HX2003-S/HX2003-P is a seven Darlington array with high voltage resistance and integrated output embedded protection diodes, which is used in driving circuits such as relay arrays.

Characteristic

- ESD capability: 4000V
- Each independently.
- The output embedded protection diode has a fast discharge speed and good consistency among all channels.
- The output driver is sufficient for 500mA and has good consistency across all channels.
- Adopting SOP-16 or DIP-16 packaging.

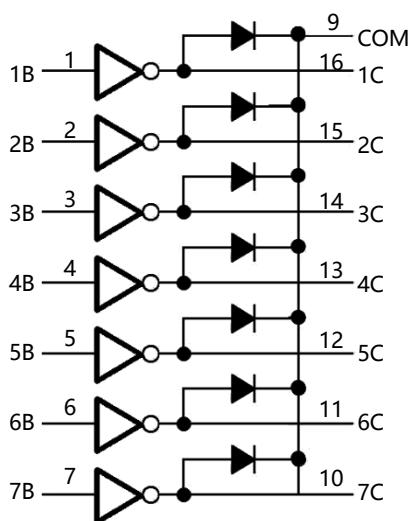


SOP-16

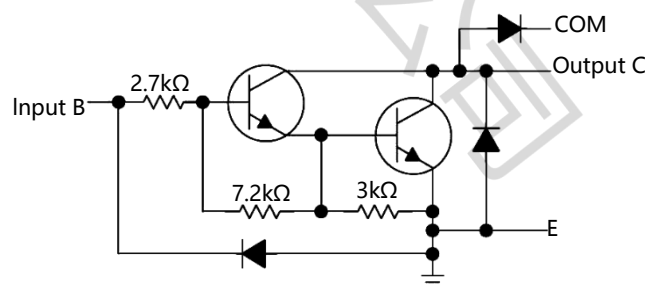


DIP-16

Layout diagram of lead out end and definition of pipe legs



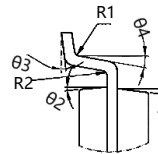
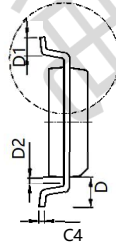
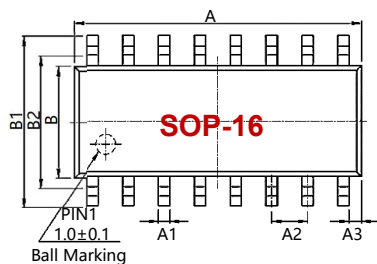
Unit Circuit Diagram



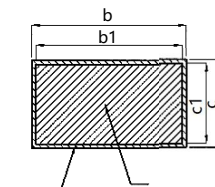
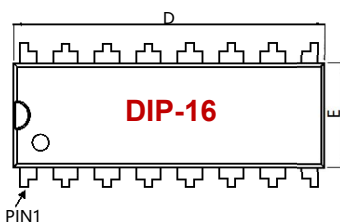
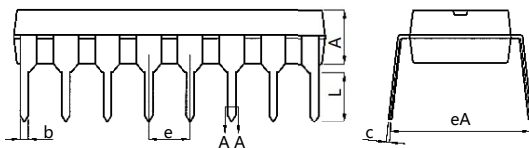
Electrical parameter table

Parameter	Parameter symbols	Test conditions	TA= +25°C			UNIT
			MIN	TYP	MAX	
Contact testing	OS	-100uA test OS GND	-1.0	-0.55	-0.3	V
Collector turn off current	I_{CEX}	$V_{CE}=50V$; $I_I=0$			15	μA
Input terminal open current	$I_I (ON)$	$V_I=3.85V$	0.6	0.9	1.2	mA
Input terminal opening voltage	$V_I (ON)$	$V_{CE}=2V$	$I_C=200mA$	0.6	1.0	V
			$I_C=250mA$	1.0	1.4	
			$I_C=300mA$	1.2	1.6	
CE saturation pressure drop	$V_{CE (SAT)}$	$I_I=250uA$	$I_C=100mA$	0.6	0.9	V
		$I_I=350uA$	$I_C=200mA$	0.7	1.0	
		$I_I=500uA$	$I_C=350mA$	0.9	1.3	
RLED	I_R	$V_R=50V$			15	μA
Fwd Vd of emb diode	VF	$I_F=350mA$	1.0	1.6	1.9	V

Package Information



Mark	Size	MIN(mm)	MAX(mm)	Mark	Size	MIN(mm)	MAX(mm)
A	9.80	10.00	C4	0.203	0.233		
AI	0.356	0.456	D	1.05TYP			
A2	1.27TYP		D1	0.40	0.70		
A3	0.302TYP		D2	0.15	0.25		
B	3.85	3.95	R1	0.20TYP			
B1	5.84	6.24	R2	0.20TYP			
B2	5.00TYP		Ø1	8°~12° TYP4			
C	1.40	1.60	Ø2	8°~12° TYP4			
CI	0.61	0.71	Ø3	0°~8°			
Cp	0.54	0.64	Ø4	4°~12°			
C3	0.05	0.25					



Symbol	millimeter		
	MIN	NOM	MAX
A	3.20	3.30	3.40
b	0.44		0.53
b1	0.43	0.46	0.49
c	0.25		0.30
c1	0.24	0.25	0.26
D	18.95	19.05	19.15
E	6.25	6.35	6.45
e	2.54BSC		
eA	8.30	8.80	9.30
L	3.00		

Part Number	Package Type	Package	Quantity
HX2003-S	SOP-16	Taping	1000
HX2003-P	DIP-16	Taping	500