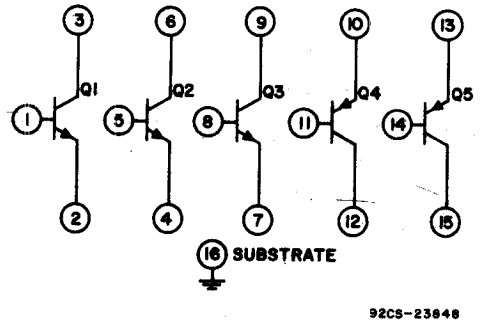
General-Purpose High-Voltage n-p-n/p-n-p Transistor Arrays

CA3096
CA3096A

3 Independent n-p-n Transistors/2 Independent p-n-p Transistors



92CS-23848

Package	Suffix	T_A (°C)
16-Lead DIP	E	−55 to 125
Chip (CA3096)	H	Page 59

File No. 595*

- Differential amplifiers
- Level shifters
- Thyristor firing circuits
- DC amplifiers
- Sense amplifiers
- Operational Amplifiers
- Timers
- Lamp and relay drivers
- Phase Comparator

Electrical Characteristics at T_A = 25°C

NPN CHARACTERISTICS
h_{FE} (MIN.) = 150 @ I_C = 1 mA, V_{CE} = 5 VOLTS
BV_{CEO} (MIN.) = 35 VOLTS @ I_C = 1 mA
I_C (MAX.) = 50 mA

PNP CHARACTERISTICS
h_{FE} (MIN.) = 40 @ I_C = 100 μA, V_{CE} = 5 VOLTS
BV_{CEO} (MIN.) = 40 @ I_C = 100 μA
I_C (MAX.) = 10 mA

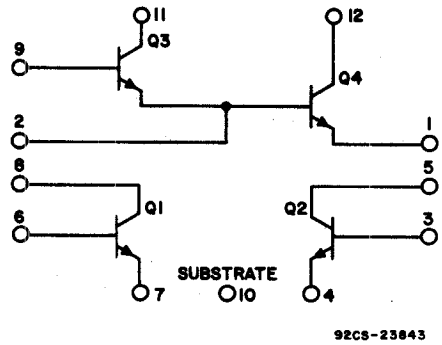
Maximum Ratings at T_A = 25°C

	NPN	PNP	
Collector-to-Emitter Voltage	35	−40	V
Collector-to-Base Voltage	45	−40	V
Collector-to-Substrate Voltage	45	−45	V
Emitter-to-Base Voltage	6	−40	V

RCA TYPE	I_{CBO} (nA)		I_{CEO} (nA)		$V_{CE(SAT)}$ (V)		$\lvert V_{10}\rvert$ (mV)		$\lvert I_{10}\rvert$ (μA)	
	n-p-n	p-n-p	n-p-n	p-n-p	n-p-n	p-n-p	n-p-n	p-n-p	n-p-n	p-n-p
CA3096AE	40	−40	100	−100	0.7	−0.4	5	5	0.6	0.25
CA3096E	100	−100	1000	−1000	1.0	−0.7	–	–	–	–

Two Individual Transistors and a Darlington-Connected Transistor Pair

CA3018, CA3118
CA3018A, CA3118A



92CS-23843

Package	Suffix	T_A (°C)
12-Lead TO-5	T**	−55 to 125
Beam Lead (CA3018)	L	Page 59
Chip (CA3018, CA3118)	H	Page 59

File Nos. 338, 532; ICAN Nos. 5290, 5291*
High-Reliability Version, see Page 41.
**No suffix for CA3018, CA3018A

Applications and Features

For general use in signal processing systems in the dc through vhf range
Custom designed differential amplifiers
Operation from dc to 120MHz
Temperature-compensated amplifiers
Matched monolithic general-purpose transistors

Electrical Characteristics at T_A = 25°C

Type	DATA FILE NO.	V_{CEO} min.	V_{CBO} min.	V_{CE} sat. typ. V I_C=10mA	V_{BE} typ. V I_C=1mA	I_C max. mA	h_{FE} at I_C=1mA min.
CA3018	338	15	20	0.23	0.715	50	30
CA3018A	338	15	20	0.23	0.715	50	60
CA3118AT	532	40	50	0.33	0.730	50	30
CA3118T	532	30	40	0.33	0.730	50	30

*Refer to indicated File No. for data bulletin and where given to indicated ICAN No. for application note.