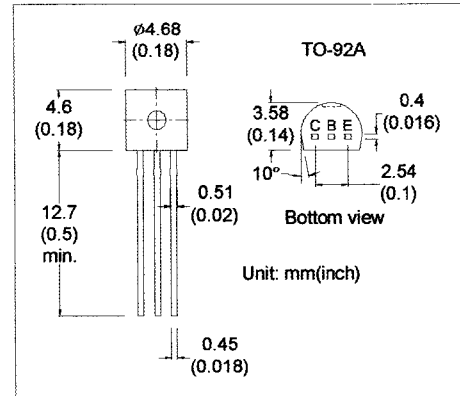


DESCRIPTION

2N5830 and 2N5831 are NPN silicon planar transistors designed for small signal high voltage general purpose amplifiers.



ABSOLUTE MAXIMUM RATINGS

		2N5830	2N5831
Collector-Emitter Voltage	V _{CEO}	100V	140V
Collector-Base Voltage	V _{CBO}	120V	160V
Emitter-Base Voltage	V _{EBO}	5V	5V
Collector Current Continuous	I _C	600mA	600mA
Total Power Dissipation @ Ta=25°C	P _{tot}	625mW	625mW
Operating & Storage Junction Temperature	T _j , T _{stg}	-55 to +150°C	

ELECTRICAL CHARACTERISTICS

(Ta=25°C, unless otherwise noted)

PARAMETER	SYMBOL	2N5830		2N5831		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX		
Collector-Emitter Breakdown Voltage	BV _{CEO} *	100		140		V	I _C =1mA I _B =0
Collector-Base Breakdown Voltage	BV _{CBO}	120		160		V	I _C =100μA I _E =0
Emitter-Base Breakdown Voltage	BV _{EBO}	5		5		V	I _E =10μA I _C =0
Collector Cutoff Current	I _{CBO}	50				nA	V _{CB} =100V I _E =0
				50		nA	V _{CB} =120V I _E =0
Emitter Cutoff Current	I _{EBO}	50		50		nA	V _{EB} =4V I _C =0
D.C. Current Gain	h _{FE} *	60		60			V _{CE} =5V I _C =1mA
		80	500	80	250		V _{CE} =5V I _C =10mA
		50		50			V _{CE} =5V I _C =50mA
Collector-Emitter Saturation Voltage	V _{CE(sat)} *	0.15		0.15		V	I _C =1mA I _B =0.1mA
		0.2		0.2		V	I _C =10mA I _B =1mA
		0.25		0.25		V	I _C =50mA I _B =5mA
Base-Emitter Saturation Voltage	V _{BE(sat)} *	0.8		0.8		V	I _C =1mA I _B =0.1mA
		1.0		1.0		V	I _C =10mA I _B =1mA
		1.0		1.0		V	I _C =50mA I _B =5mA
Base-Emitter Voltage	V _{BE} *	0.8		0.8		V	V _{CE} =5V I _C =1mA
Small Signal Current Gain	h _{fe}	60		60			V _{CE} =10V I _C =1mA
							f=1kHz
Collector-Base Capacitance	C _{cb}	4		4		pF	V _{CB} =10V I _E =0 f=1MHz

* Pulse test : Pulse width =300μs, duty cycle <2%.

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