

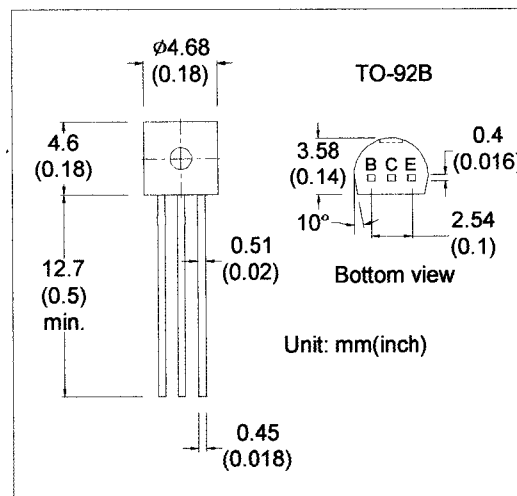
# MICRO ELECTRONICS

2N3414

NPN  
SILICON  
TRANSISTOR

## DESCRIPTION

2N3414 is NPN silicon transistor designed for general purpose AF medium power applications.



## ABSOLUTE MAXIMUM RATINGS

Collector-Emitter Voltage	V <sub>CEO</sub>	25V
Collector-Base Voltage	V <sub>CBO</sub>	25V
Emitter-Base Voltage	V <sub>EBO</sub>	5V
Collector Current Continuous	I <sub>C</sub>	500mA
Total Power Dissipation @ Ta=25°C	P <sub>tot</sub>	360mW
Operating & Storage Junction Temperature	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150°C

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	CONDITIONS
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	25		V	I <sub>C</sub> =10mA IB=0
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	25		V	I <sub>C</sub> =100μA IE=0
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	5		V	IE=10μA IC=0
Collector Cutoff Current	IC <sub>BO</sub>		100	nA	V <sub>CB</sub> =25V IE=0
Emitter Cutoff Current	IE <sub>BO</sub>		100	nA	V <sub>EB</sub> =5V IC=0
D.C. Current Gain	HFE	75	225		V <sub>CE</sub> =4.5V IC=2mA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>		0.3	V	I <sub>C</sub> =50mA IB=3mA
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>		1.3	V	I <sub>C</sub> =50mA IB=3mA
Small Signal Current Gain	hfe	75			V <sub>CE</sub> =10V IC=1mA f=1kHz

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