

# MICRO ELECTRO

NPN  
SILICON  
TRANSISTOR

## DESCRIPTION

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

TO-92



ECB

## ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	V <sub>CEO</sub>	25V
Collector-Emitter Voltage	V <sub>CBO</sub>	25V
Emitter-Base Voltage	V <sub>EBO</sub>	5V
Collector Current	I <sub>C</sub>	500mA
Operating & Storage Junction Temperature	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150°C

## ELECTRO-OPTICAL CHARACTERISTICS

(T<sub>a</sub>=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	25		V	I <sub>C</sub> =100μA I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	25		V	I <sub>C</sub> =10mA I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	5		V	I <sub>E</sub> =10μA I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CBO</sub>		100	nA	V <sub>CB</sub> =50V I <sub>E</sub> =0
Emitter Cutoff Current	I <sub>EBO</sub>		100	nA	V <sub>EB</sub> =5V I <sub>C</sub> =0
D.C. Current Gain	h <sub>FE</sub>	75	225		I <sub>C</sub> =2mA V <sub>CE</sub> =4.5V
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>		0.3	V	I <sub>C</sub> =50mA I <sub>B</sub> =3mA
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>		0.85	V	I <sub>C</sub> =50mA I <sub>B</sub> =3mA
Small Signal Current Gain	h <sub>fe</sub>	300	TYP		I <sub>C</sub> =1mA V <sub>CE</sub> =10V f=1KHz



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