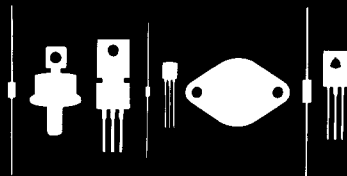


Central
Semiconductor Corp.
Central
Semiconductor Corp.
Central
Semiconductor Corp.
**CentralTM
Semiconductor Corp.**

145 Adams Avenue
Hauppauge, New York 11788



2N404

GERMANIUM TRANSISTOR

JEDEC TO-5 CASE

(all leads isolated from case)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N404 is a Germanium PNP Transistor designed for low frequency medium power amplifier and switching applications.

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CB0}	25	V
Collector-Emitter Voltage (Punch-through)	V_{pt}	24	V
Emitter-Base Voltage	V_{EB0}	12	V
Collector Current	I_C	100	mA
Emitter Current	I_E	100	mA
Power Dissipation	P_D	150	mW
Operating Junction Temperature	T_j	-65 TO +85	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-65 TO +100	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=12\text{V}$		5.0	μA
I_{CBO}	$V_{CB}=12\text{V}$, $T_A=80^{\circ}\text{C}$		90	μA
I_{EBO}	$V_{EB}=2.5\text{V}$		2.5	μA
BV_{CBO}	$I_C=20\mu\text{A}$	25		V
BV_{EBO}	$I_E=20\mu\text{A}$	12		V
$V_{CE} \text{ (SAT)}$	$I_C=12\text{mA}$, $I_B=0.4\text{mA}$		0.15	V
$V_{CE} \text{ (SAT)}$	$I_C=24\text{mA}$, $I_B=1.0\text{mA}$		0.20	V
$V_{BE} \text{ (SAT)}$	$I_C=12\text{mA}$, $I_B=0.4\text{mA}$		0.35	V
$V_{BE} \text{ (SAT)}$	$I_C=24\text{mA}$, $I_B=1.0\text{mA}$		0.40	V
h_{FE}	$V_{CE}=0.15\text{V}$, $I_C=12\text{mA}$	30		-
h_{FE}	$V_{CE}=0.20\text{V}$, $I_C=24\text{mA}$	24		-
h_{fe}	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$, $f=1.0\text{kHz}$	135 typ		-
h_{ie}	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$, $f=1.0\text{kHz}$	4.0 typ		$k\Omega$
h_{oe}	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$, $f=1.0\text{kHz}$	50 typ		μmho
h_{re}	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$, $f=1.0\text{kHz}$	7×10^{-4} typ		-
c_{ob}	$V_{CB}=6\text{V}$, $I_E=0$, $f=1\text{MHz}$		20	pF
f_{hfb}	$V_{CB}=6\text{V}$, $I_E=1\text{mA}$	4.0		MHz

CentralTM
Semiconductor Corp.

145 Adams Avenue
Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com