Data Sheet

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Manufacturers of World Class Discrete Semiconductors

2N4424

NPN SILICON TRANSISTOR

JEDEC TO-92 (ECB) CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4424 type is a NPN Silicon Planar Epitaxial Transistor designed for general purpose amplifier applications.

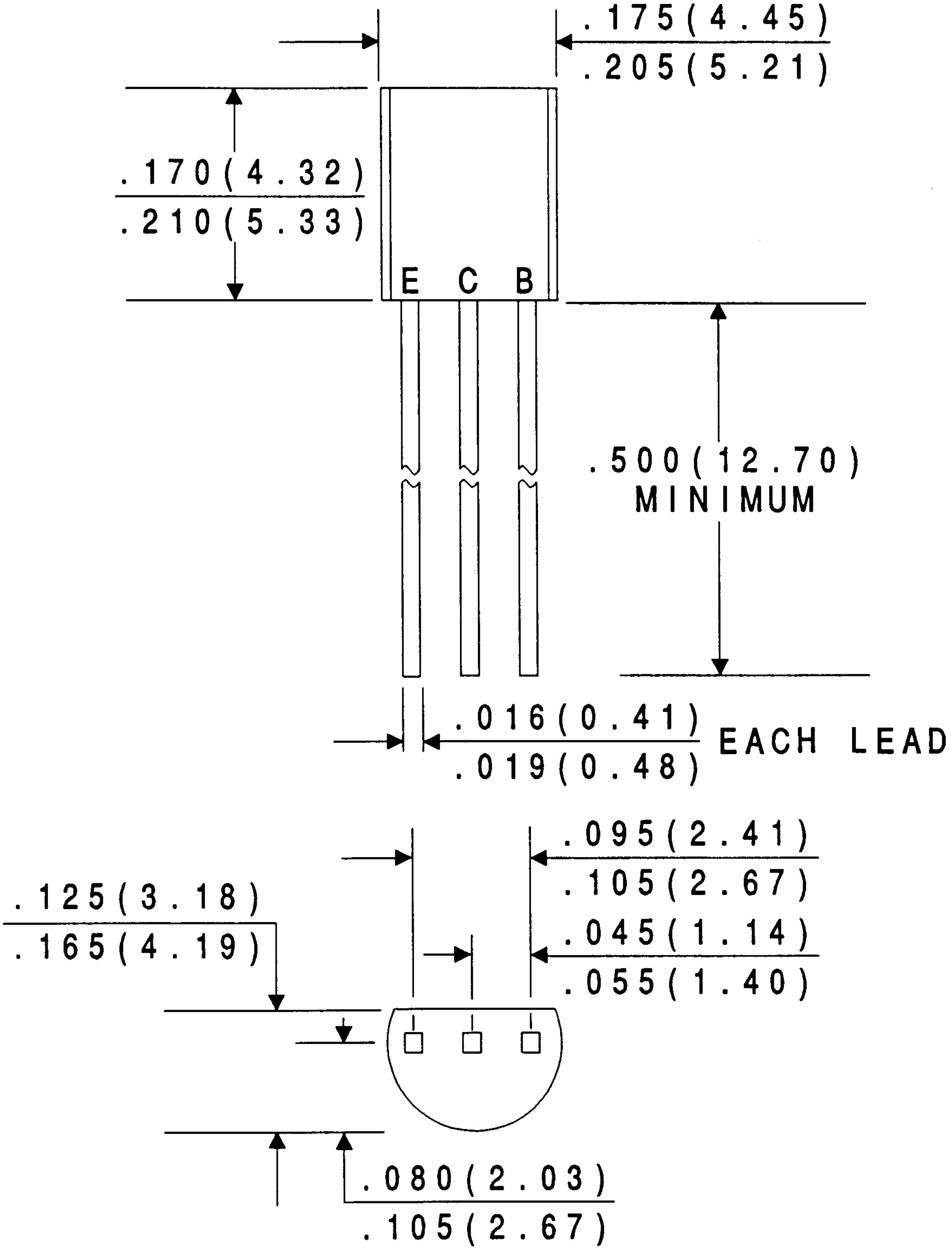
MAXIMUM RATINGS ($T_A=25^oC$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	500	mA
Power Dissipation	P_D	625	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	0.2	°C/mW

ELECTRICAL CHARACTERISTICS ($T_A=25^oC$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=40V$			30	nA
I_{CBO}	$V_{CB}=40V$, $T_A=100^oC$			10	μA
I_{CES}	$V_{CB}=40V$			30	nA
I_{EBO}	$V_{EB}=5.0V$			100	nA
BV_{CBO}	$I_C=10\mu A$	60			V
BV_{CEO}	$I_C=10mA$	40			V
BV_{EBO}	$I_C=0.1\mu A$	5.0			V
$V_{CE(SAT)}$	$I_C=50mA$, $I_B=3.0mA$			0.30	V
$V_{BE(SAT)}$	$I_C=50mA$, $I_B=3.0mA$			0.85	V
h_{FE}	$V_{CE}=4.5V$, $I_C=2.0mA$	180		540	
h_{fe}	$V_{CE}=4.5V$, $I_C=2.0mA$, $f=1.0kHz$	180			
h_{fe}	$V_{CE}=10V$, $I_C=1.0mA$, $f=1.0kHz$		180		
h_{ie}	$V_{CE}=10V$, $I_C=1.0mA$, $f=1.0kHz$		5100		Ω
h_{oe}	$V_{CE}=10V$, $I_C=1.0mA$, $f=1.0kHz$		14		μmhos
h_{re}	$V_{CE}=10V$, $I_C=1.0mA$, $f=1.0kHz$		0.27		$X10^{-3}$

JEDEC TO-92 - MECHANICAL DIMENSIONS



All Dimensions in Inches (mm).

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