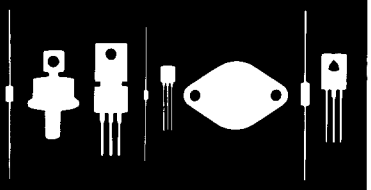
Central
Semiconductor Corp.
Central
Semiconductor Corp.
Central™
Semiconductor Corp.
145 Adams Avenue
Hauppauge, New York 11788



2N4256

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE (ECB)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4256 type is a Silicon NPN Planar Epitaxial Transistor designed for low level medium speed switching applications.

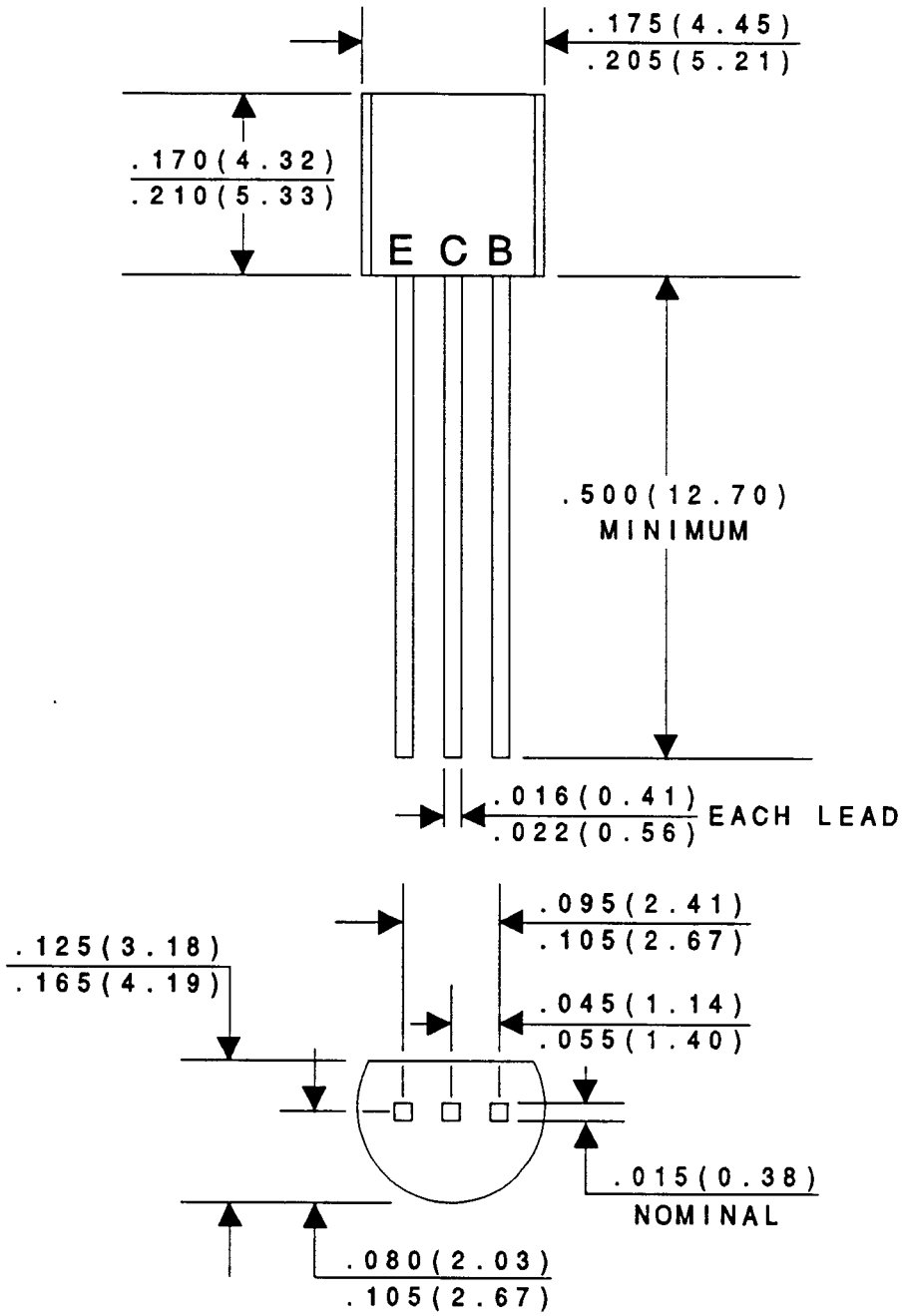
MAXIMUM RATINGS ($T_A = 25°C$)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CES}	30	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	100	mA
Power Dissipation	P_D	625	mW
Power Dissipation ($T_C = 25°C$)	P_D	1.5	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	200	°C/W
Thermal Resistance	Θ_{JC}	83.3	°C/W

ELECTRICAL CHARACTERISTICS ($T_A = 25°C$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB} = 30V$			500	nA
I_{CBO}	$V_{CE} = 18V$, $T_A = 100°C$			15	μA
I_{CES}	$V_{CE} = 30V$			500	nA
I_{EBO}	$V_{EB} = 5.0V$			500	nA
BV_{CBO}	$I_C = 100μA$	30			V
BV_{CES}	$I_C = 1.0mA$	30			V
BV_{EBO}	$I_E = 100μA$	5.0			V
$V_{CE(SAT)}$	$I_C = 0.1mA$, $I_B = 2.0μA$			0.2	V
$V_{CE(SAT)}$	$I_C = 1.0mA$, $I_B = 20μA$			0.2	V
$V_{CE(SAT)}$	$I_C = 10mA$, $I_B = 200μA$			0.2	V
$V_{CE(SAT)}$	$I_C = 50mA$, $I_B = 2.5mA$			0.2	V
$V_{BE(SAT)}$	$I_C = 50mA$, $I_B = 2.5mA$			0.92	V
h_{FE}	$V_{CE} = 4.5V$, $I_C = 2.0mA$	100		500	
h_{FE}	$V_{CE} = 0.2V$, $I_C = 10mA$	60			
h_{FE}	$V_{CE} = 0.2V$, $I_C = 50mA$	20			
f_T	$V_{CE} = 1.0V$, $I_C = 10mA$		200		MHz
C_{ib}	$V_{BE} = 0.5V$, $I_C = 0$, $f = 1.0MHz$		10		pF
C_{ob}	$V_{CB} = 10V$, $I_E = 0$, $f = 1.0MHz$			4.0	pF
Q_{SB}	$I_C = 10mA$, $I_B = 0.32mA$			600	pC
t_{on}	$V_{CC} = 6.0V$, $I_C = 10mA$		4.0		ns
t_{off}	$V_{CC} = 6.0V$, $I_C = 10mA$			3.5	μs
t_{on}	$V_{CC} = 6.0V$, $I_C = 10mA$, $I_{B1} = 0.32mA$, $I_{B2} = 54μA$			180	ns
t_{off}	$V_{CC} = 6.0V$, $I_C = 10mA$, $I_{B1} = 0.32mA$, $I_{B2} = 54μA$			3.5	μs

JEDEC TO-92 CASE - MECHANICAL DIMENSIONS



All Dimensions in Inches (mm).

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