

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N2060M

NPN SILICON
DUAL TRANSISTOR

JEDEC TO-78 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N2060M is a silicon NPN dual transistor utilizing two individual chips mounted in a hermetically sealed metal case designed for differential amplifier applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CBO}	100	V
Collector-Emitter Voltage	V _{CER}	80	V
Collector-Emitter Voltage	V _{CEO}	60	V
Emitter-Base Voltage	V _{EBO}	7.0	V
Collector Current	I _C	500	mA
Power Dissipation (One Die)	P _D	500	mW
Power Dissipation (Both Dice)	P _D	600	mW
Power Dissipation (One Die, T _C =25°C)	P _D	1.5	W
Power Dissipation (Both Dice, T _C =25°C)	P _D	3.0	W
Operating and Storage			
Junction Temperature	T _J , T _{stg}	-65 to +200	°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =80V		2.0	nA
I _{EBO}	V _{EB} =5.0V		2.0	nA
BV _{CBO}	I _C =100μA	100		V
BV _{CER}	I _C =10mA, R _{BE} =10Ω	80		V
BV _{CEO}	I _C =30mA	60		V
BV _{EBO}	I _E =100μA	7.0		V
V _{CE(s)}	I _C =50mA, I _B =5.0mA		1.2	V
V _{BE(s)}	I _C =50mA, I _B =5.0mA		0.9	V
h _{FE}	V _{CE} =5.0V, I _C =10μA	25	150	
h _{FE}	V _{CE} =5.0V, I _C =100μA	30	150	
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	40	150	
h _{FE}	V _{CE} =5.0V, I _C =10mA	50	200	
f _T	V _{CE} =10V, I _C =50mA, f=20MHz	60		Mhz

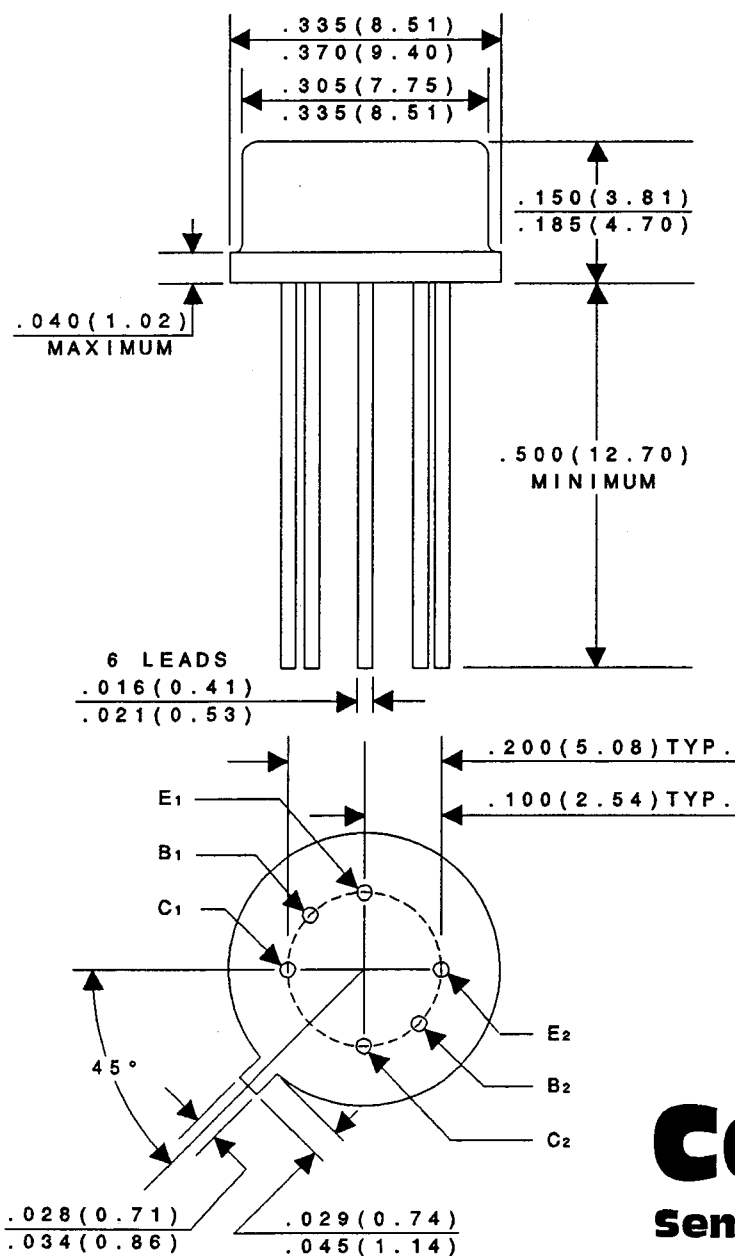
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ELECTRICAL CHARACTERISTICS (cont.) ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1.0\text{MHz}$		15	pF
C_{ib}	$V_{BE}=0.5\text{V}$, $I_C=0$, $f=1.0\text{MHz}$		85	pF
NF	$V_{CE}=10\text{V}$, $I_C=300\mu\text{A}$, $R_S=510\Omega$, $f=1.0\text{kHz}$, $BW=200\text{Hz}$		8.0	dB
h_{FE1}/h_{FE2}	$V_{CE}=5.0\text{V}$, $I_C=100\mu\text{A}$	0.9	1.0	
h_{FE1}/h_{FE2}	$V_{CE}=5.0\text{V}$, $I_C=1.0\text{mA}$	0.9	1.0	
$ V_{BE1}-V_{BE2} $	$V_{CE}=5.0\text{V}$, $I_C=100\mu\text{A}$		5.0	mV
$ V_{BE1}-V_{BE2} $	$V_{CE}=5.0\text{V}$, $I_C=1.0\text{mA}$		5.0	mV

TO-78 MECHANICAL OUTLINE

All Dimensions in inches (mm).



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