

CentralTM Semiconductor Corp.

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

Manufacturers of World Class Discrete Semiconductors

2N5582

NPN SILICON TRANSISTOR

JEDEC TO-46 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5582 type is a Silicon NPN Transistors designed switching and amplifier applications.

MAXIMUM RATINGS (T_A = 25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	75	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	6.0	V
Collector Current	I _C	800	mA
Power Dissipation	P _D	600	mW
Operating and Storage			
Junction Temperature	T _J , T _{stg}	-65 to +200	°C
Thermal Resistance	θ _{JA}	292	°C/W

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

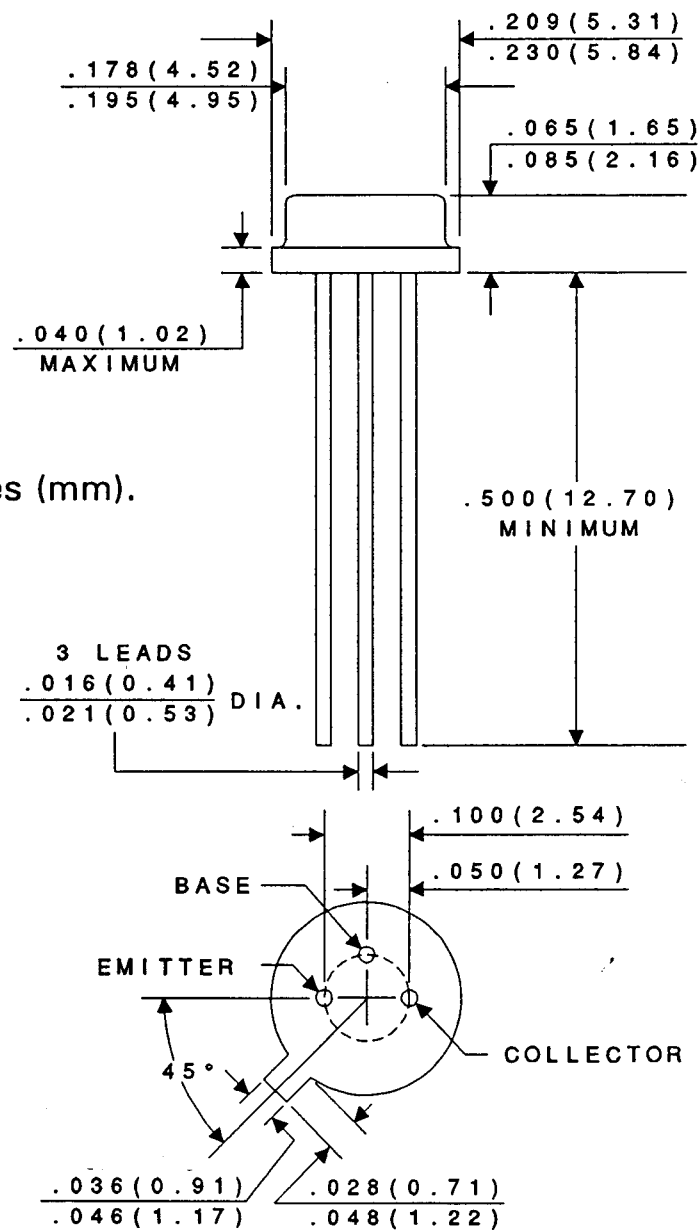
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CEV}	V _{CE} = 60V, V _{BE(off)} = 3.0V		10	nA
I _{CB0}	V _{CB} = 60V		10	nA
I _{CB0}	V _{CB} = 60V, T _A = 150°C		10	μA
I _{EBO}	V _{EB} = 3.0V		10	nA
BV _{CB0}	I _C = 10μA	75		V
BV _{CEO}	I _C = 10mA	40		V
BV _{EBO}	I _E = 10μA	6.0		V
V _{CE(SAT)}	I _C = 150mA, I _B = 15mA		0.3	V
V _{CE(SAT)}	I _C = 500mA, I _B = 50mA		1.0	V
V _{BE(SAT)}	I _C = 150mA, I _B = 15mA	0.6	1.2	V
V _{BE(SAT)}	I _C = 500mA, I _B = 50mA		2.0	V
h _{FE}	V _{CE} = 10V, I _C = 100μA	35		-
h _{FE}	V _{CE} = 10V, I _C = 1.0mA	50		-
h _{FE}	V _{CE} = 10V, I _C = 10mA	75		-
h _{FE}	V _{CE} = 10V, I _C = 10mA, T _A = -55°C	35		-
h _{FE}	V _{CE} = 10V, I _C = 150mA	100	300	-
h _{FE}	V _{CE} = 1.0V, I _C = 150mA	50		-
h _{FE}	V _{CE} = 10V, I _C = 500mA	40		-

(Continued on Reverse Side)

ELECTRICAL CHARACTERISTICS (Continued)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
f_T	$V_{CE}=20V, I_C=20mA, f=100MHz$	300		MHz
C_{cb}	$V_{CB}=10V, I_E=0, f=100kHz$		8.0	pF
C_{ib}	$V_{EB}=0.5V, I_C=0, f=100kHz$		25	pF
t_d	$V_{CC}=30V, V_{BE(off)}=0.5V, I_C=150mA, I_{B1}=15mA$		10	ns
t_r	$V_{CC}=30V, V_{BE(off)}=0.5V, I_C=150mA, I_{B1}=15mA$		25	ns
t_s	$V_{CC}=30V, I_C=150mA, I_{B1}=I_{B2}=15mA$		225	ns
t_f	$V_{CC}=30V, I_C=150mA, I_{B1}=I_{B2}=15mA$		60	ns

JEDEC TO-46 - MECHANICAL OUTLINE



All Dimensions in Inches (mm).