

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N5058
2N5059

NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5058, 2N5059 types are NPN Silicon Epitaxial Planar Transistors designed for high voltage, general purpose amplifier applications.

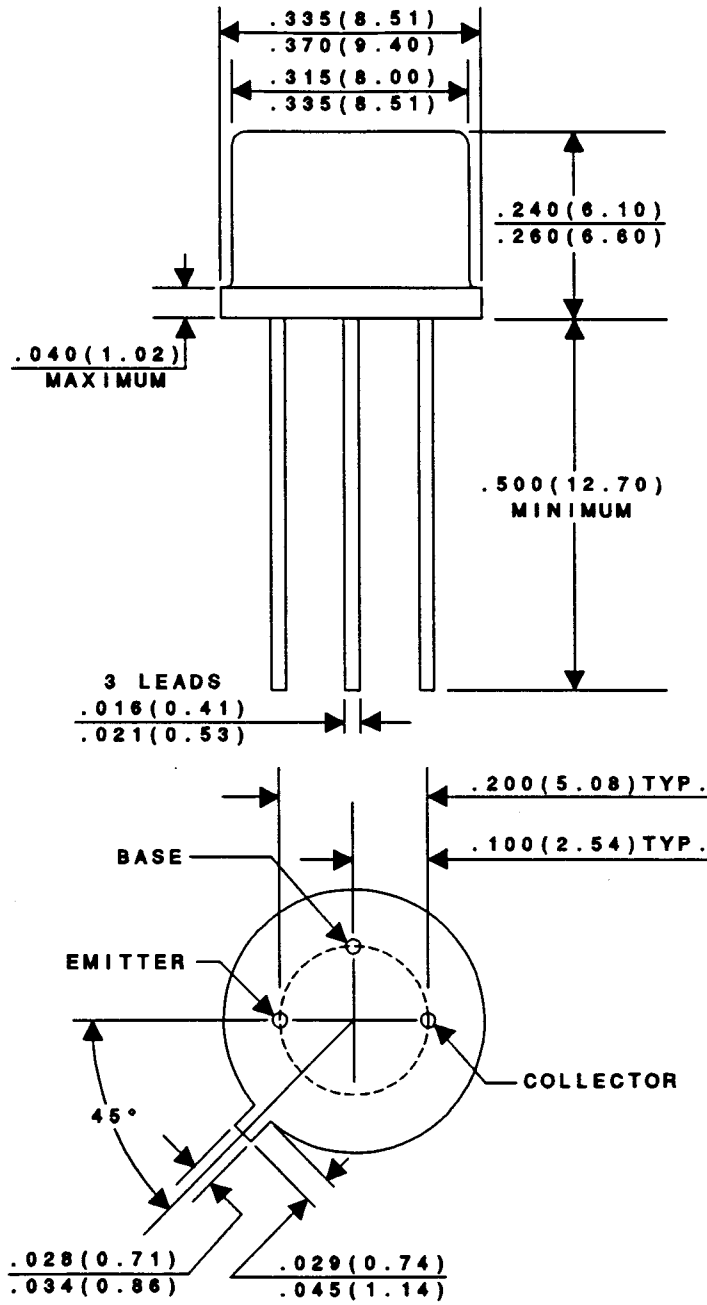
MAXIMUM RATINGS (T_A = 25°C)

	SYMBOL	2N5058	2N5059	UNITS
Collector-Base Voltage	V _{CB0}	300	250	V
Collector-Emitter Voltage	V _{CEO}	300	250	V
Emitter-Base Voltage	V _{EBO}	7.0	6.0	V
Continuous Collector Current	I _C	150		mA
Power Dissipation	P _D	1.0		mW
Power Dissipation (T _C = 25°C)	P _D	5.0		W
Operating and Storage				
Junction Temperature	T _J , T _{stg}	-65 to +200		°C
Thermal Resistance	θ _{JA}	150		°C/W
Thermal Resistance	θ _{JC}	30		°C/W

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

SYMBOL	TEST CONDITIONS	2N5058		2N5059		UNITS
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} = 100V		50		50	nA
I _{CB0}	V _{CB} = 100V, T _A = 125°C		20		20	μA
I _{EBO}	V _{EB} = 5.0V		10		10	nA
BV _{CB0}	I _C = 100μA	300		250		V
BV _{CEO}	I _C = 30mA	300		250		V
BV _{EBO}	I _C = 100μA	7.0		6.0		V
V _{CE(SAT)}	I _C = 30mA, I _B = 3.0mA		1.0		1.0	V
V _{BE(SAT)}	I _C = 30mA, I _B = 3.0mA		0.85		0.85	V
V _{BE(ON)}	V _{CE} = 25V, I _C = 30mA		0.82		0.82	V
h _{FE}	V _{CE} = 25V, I _C = 5.0mA	10			10	
h _{FE}	V _{CE} = 25V, I _C = 30mA	35	150	30	150	
h _{FE}	V _{CE} = 25V, I _C = 30mA, T _A = -55°C	10		-		
h _{FE}	V _{CE} = 25V, I _C = 100mA	35		30		
f _T	V _{CE} = 25V, I _C = 10mA, f = 20MHz	30	160	30	160	MHz
C _{cb}	V _{CB} = 10V, I _E = 0, f = 1.0MHz		10		10	pF
C _{eb}	V _{BE} = 0.5V, I _C = 0, f = 1.0MHz		75		75	pF

JEDEC TO-39 CASE - MECHANICAL DIMENSIONS



All Dimensions in Inches (mm).