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Manufacturers of World Class Discrete Semiconductors

CM5160

PNP HIGH FREQUENCY
SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CM5160 is a Silicon PNP RF Transistor, mounted in a hermetically sealed package, designed for high frequency amplifier and non-saturated switching applications. This device is a replacement for the 2N5160.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V _{CB0}	60	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	4.0	V
Collector Current - Continuous	I _C	400	mA
Power Dissipation	P _D	1.0	W
Power Dissipation (T _C =25°C)	P _D	5.0	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	TYP	MAX	UNITS
I _{CBO}	V _{CB} =28V			1.0	μA
I _{CES}	V _{CE} =60V			100	μA
I _{CEO}	V _{CB} =28V			20	μA
BV _{CEO}	I _C =5.0mA	40			V
BV _{EBO}	I _E =100μA	4.0			V
V _{CE(SAT)}	I _C =100mA, I _B =10mA		0.25	0.6	V
V _{BE(ON)}	V _{CE} =2.0V, I _C =100mA		0.82	1.6	V
h _{FE}	V _{CE} =5.0V, I _C =50mA	30	60		
h _{FE}	V _{CE} =5.0V, I _C =100mA	25	50		
h _{FE}	V _{CE} =5.0V, I _C =300mA	12	20		
f _T	V _{CE} =15V, I _C =50mA, f=200MHz	500	900		MHz
C _{cb}	V _{CB} =28V, I _E =0, f=0.1 to 1.0 MHz		3.2	4.0	pF
C _{eb}	V _{EB} =0.5V, I _C =0, f=0.1 to 1.0 MHz		40	70	pF
*t _d	V _{CC} =31.4V, I _C =150mA, R _C =160Ω, R _E =26.6Ω		2.6		ns
*t _r	V _{CC} =31.4V, I _C =150mA, R _C =160Ω, R _E =26.6Ω		4.0		ns
*t _f	V _{CC} =31.4V, I _C =150mA, R _C =160Ω, R _E =26.6Ω		3.0		ns
*t _s	V _{CC} =31.4V, I _C =150mA, R _C =160Ω, R _E =26.6Ω		3.2		ns

*See Figure 1

(See Reverse Side)

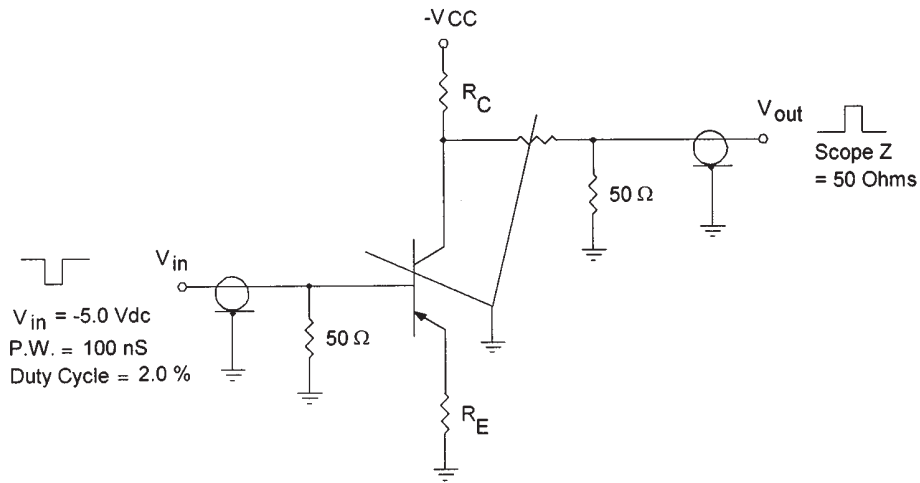
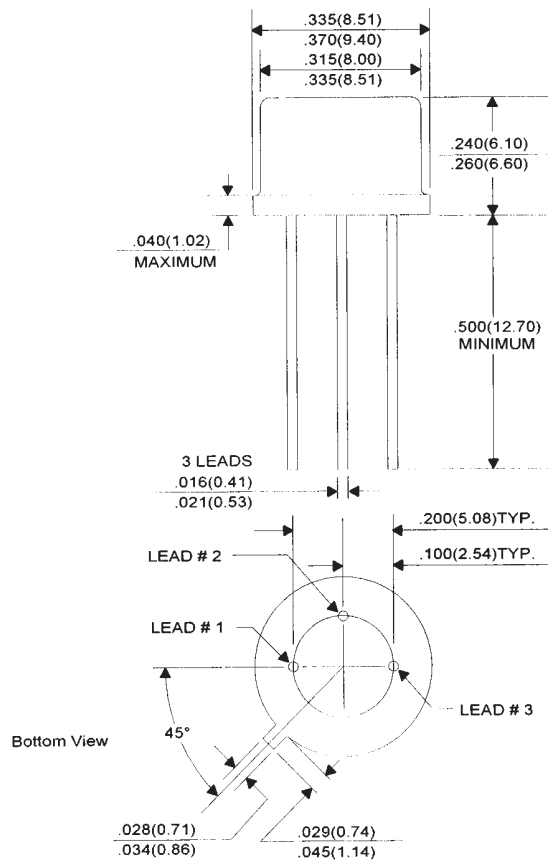


Figure 1. Switching Time Test Circuit

JEDEC TO-39 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

- 1) Emitter
- 2) Base
- 3) Collector