

**CEN-U95**  
**PNP SILICON**  
**DARLINGTON TRANSISTOR**



**TO-202 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CEN-U95 is a PNP Silicon Darlington Transistor designed for general purpose amplifier and driver applications where high gain and high power dissipation is required.

**MARKING: FULL PART NUMBER**

**APPLICATIONS:**

- Designed for general purpose amplifiers and drivers

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Collector-Base Voltage	
Collector-Emitter Voltage	
Emitter-Base Voltage	
Continuous Collector Current	
Power Dissipation	
Power Dissipation ( $T_C=25^\circ\text{C}$ )	
Operating and Storage Junction Temperature	
Thermal Resistance	
Thermal Resistance	

**FEATURES:**

- High Collector Current (2.0A)
- High DC Current Gain (25K MIN)

SYMBOL		UNITS
$V_{CBO}$	50	V
$V_{CES}$	40	V
$V_{EBO}$	10	V
$I_C$	2.0	A
$P_D$	1.0	W
$P_D$	10	W
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	125	$^\circ\text{C/W}$
$\theta_{JC}$	12.5	$^\circ\text{C/W}$

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

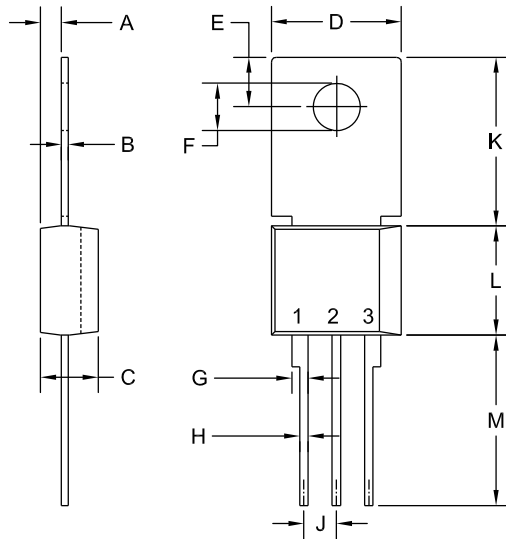
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=30\text{V}$		100	nA
$I_{EBO}$	$V_{EB}=8.0\text{V}$		100	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	50		V
$BV_{CES}$	$I_C=100\mu\text{A}$	40		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	10		V
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=2.0\text{mA}$		1.5	V
$V_{BE(SAT)}$	$I_C=1.0\text{A}, I_B=2.0\text{mA}$		2.0	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{A}$		2.0	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=200\text{mA}$	25K	150K	
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=500\text{mA}$	15K		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{A}$	4K		
$f_T$	$V_{CE}=5.0\text{V}, I_C=200\text{mA}, f=100\text{MHz}$	50		MHz
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		12	pF

R0 (12-October 2011)

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**TO-202 CASE - MECHANICAL OUTLINE**



R1

**LEAD CODE:**

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

**MARKING:**

**FULL PART NUMBER**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.071	1.40	1.80
B	0.016	0.024	0.40	0.60
C	0.173	0.181	4.40	4.60
D	0.374	0.413	9.50	10.50
E	0.146	0.154	3.70	3.90
F (DIA)	0.142	0.150	3.60	3.80
G	0.039	0.055	1.00	1.40
H	0.024	0.031	0.60	0.80
J	0.094	0.106	2.39	2.69
K	0.492	0.551	12.50	14.00
L	0.327	0.346	8.30	8.80
M	0.492	0.531	12.50	13.50

TO-202 (REV: R1)

R0 (12-October 2011)

[www.centalsemi.com](http://www.centalsemi.com)