CEN-U05N CEN-U06N CEN-U07N NPN
CEN-U55N CEN-U56N CEN-U57N PNP

COMPLEMENTARY
SILICON POWER TRANSISTORS

TO-202-2 CASE

www.centralsemi.com

DESCRIPTION:
The CENTRAL SEMICONDUCTOR CEN-U05N/U55N series devices are complementary silicon power transistors designed for general purpose audio amplifier applications.

MARKING: FULL PART NUMBER

APPLICATIONS:
- Designed for general purpose high voltage amplifiers and drivers

FEATURES:
- High Collector-Emitter breakdown voltage

MAXIMUM RATINGS: (T_C=25°C)	**SYMBOL**	**CEN-U05N CEN-U55N**	**CEN-U06N CEN-U56N**	**CEN-U07N CEN-U57N**	**UNITS**
Collector-Base Voltage	V_{CBO}	60	80	100	V
Collector-Emitter Voltage	V_{CEO}	60	80	100	V
Emitter-Base Voltage	V_{EBO}		4.0		V
Continuous Collector Current	I_C		2.0		A
Power Dissipation	P_D		8.33		W
Power Dissipation (T_A=25°C)	P_D		1.25		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		°C
Thermal Resistance	Θ_{JA}		100		°C/W
Thermal Resistance	Θ_{JC}		15		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=Rated V_{CBO}		0.1	µA
I_{EBO}	V_{EB}=4.0V		100	µA
BV_{CEO}	I_C=1.0mA (CEN-U05N, CEN-U55N)	60		V
BV_{CEO}	I_C=1.0mA (CEN-U06N, CEN-U56N)	80		V
BV_{CEO}	I_C=1.0mA (CEN-U07N, CEN-U57N)	100		V
$V_{CE(SAT)}$	I_C=250mA, I_B=10mA		0.5	V
$V_{CE(SAT)}$	I_C=250mA, I_B=25mA		0.35	V
$V_{BE(ON)}$	V_{CE}=1.0V, I_C=250mA		1.2	V
h_{FE}	V_{CE}=1.0V, I_C=50mA	80		
h_{FE}	V_{CE}=1.0V, I_C=250mA	50		
h_{FE}	V_{CE}=1.0V, I_C=500mA	20		
f_T	V_{CE}=5.0V, I_C=200mA, f=100MHz	50		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		30	pF

R0 (23-June 2014)

CEN-U05N CEN-U06N CEN-U07N NPN
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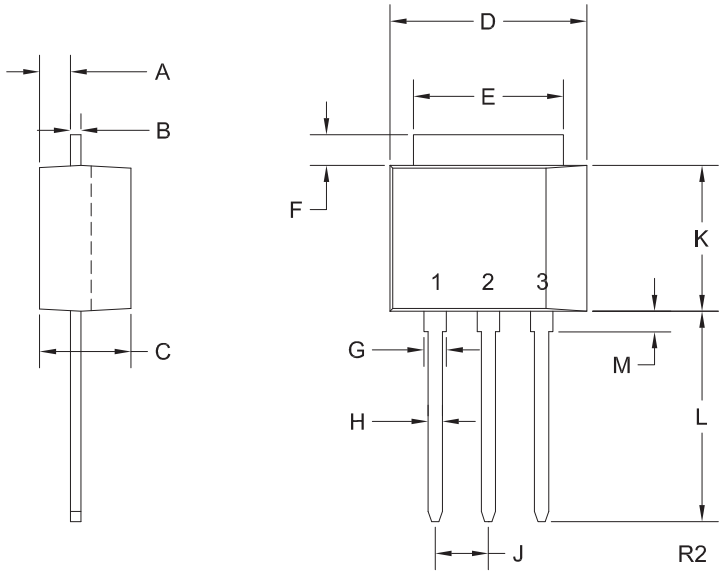
TO-202-2 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) Emitter
2) Base
3) Collector
Tab is common to pin 3

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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	10.5
E	0.236	0.355	6.00	9.00
F	-	0.071	-	1.80
G	0.035	0.055	0.90	1.40
H	0.023	0.031	0.59	0.80
J	0.094	0.106	2.39	2.69
K	0.280	0.346	7.12	8.80
L	0.406	0.531	10.3	13.5
M	0.024	0.059	0.60	1.50

TO-202-2 (REV: R2)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors