Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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2N3713 2N3715
2N3714 2N3716

SILICON
NPN TRANSISTORS

TO-3 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3713, 2N3714, 2N3715, and 2N3716 are silicon NPN power transistors manufactured by the epitaxial-base process, mounted in a hermetically sealed metal package designed for medium speed switching and amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C)

	SYMBOL	2N3713 2N3715	2N3714 2N3716	UNITS
Collector-Base Voltage	V_{CBO}	80	100	V
Collector-Emitter Voltage	V_{CEO}	60	80	V
Emitter-Base Voltage	V_{EBO}	7.0		V
Continuous Collector Current	I_C	10		A
Continuous Base Current	I_B	4.0		A
Power Dissipation	P_D	150		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200		°C
Thermal Resistance	Θ_{JC}	1.17		°C/W

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

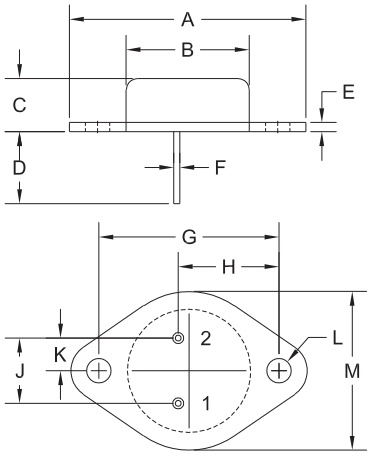
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CEV}	V_{CE}=Rated V_{CBO}, V_{BE}=1.5V			1.0	mA
I_{CEV}	V_{CE}=Rated V_{CEO}, V_{BE}=1.5V, T_C=150°C			10	mA
I_{EBO}	V_{EB}=7.0V			5.0	mA
BV_{CEO}	I_C=200mA (2N3713, 2N3715)	60			V
BV_{CEO}	I_C=200mA (2N3714, 2N3716)	80			V
$V_{CE(SAT)}$	I_C=5.0A, I_B=0.5A (2N3713, 2N3714)			1.0	V
$V_{CE(SAT)}$	I_C=5.0A, I_B=0.5A (2N3715, 2N3716)			0.8	V
$V_{BE(SAT)}$	I_C=5.0A, I_B=0.5A (2N3713, 2N3714)			2.0	V
$V_{BE(SAT)}$	I_C=5.0A, I_B=0.5A (2N3715, 2N3716)			1.5	V
$V_{BE(ON)}$	V_{CE}=2.0V, I_C=3.0A			1.5	V
h_{FE}	V_{CE}=2.0V, I_C=1.0A (2N3713, 2N3714)	40		120	
h_{FE}	V_{CE}=2.0V, I_C=1.0A (2N3715, 2N3716)	50		150	
h_{FE}	V_{CE}=2.0V, I_C=3.0A (2N3713, 2N3714)	15			
h_{FE}	V_{CE}=2.0V, I_C=3.0A (2N3715, 2N3716)	30			
f_T	V_{CE}=10V, I_C=0.5A, f=1.0MHz	4.0			MHz
t_r	I_C=5.0A, I_{B1}=I_{B2}=0.5A		0.4		µs
t_s	I_C=5.0A, I_{B1}=I_{B2}=0.5A		0.3		µs
t_f	I_C=5.0A, I_{B1}=I_{B2}=0.5A		0.4		µs

R2 (18-June 2013)

2N3713 2N3715
2N3714 2N3716

SILICON
NPN TRANSISTORS

TO-3 CASE - MECHANICAL OUTLINE



R2

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

LEAD CODE:
1) Base
2) Emitter
Case) Collector

MARKING:
FULL PART NUMBER

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

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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