2N3414 MPS3414
2N3415 MPS3415
2N3416 MPS3416
2N3417 MPS3417

SILICON
NPN TRANSISTORS

TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N3414, MPS3414 series devices are silicon NPN transistors, manufactured by the epitaxial planar process, designed for general purpose and switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL	2N3414 2N3415 MPS3414 MPS3415	2N3416 2N3417 MPS3416 MPS3417	UNITS
Collector-Base Voltage	V_{CBO}	25	50	V
Collector-Emitter Voltage	V_{CEO}	25	50	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Continuous Collector Current	I_C	500		mA
Power Dissipation	P_D	625		mW
Power Dissipation (T_C=25°C)	P_D	1.5		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150		°C

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

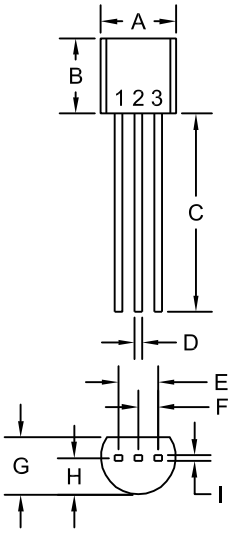
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=Rated V_{CBO}		100	nA
I_{EBO}	V_{EB}=5.0V		100	nA
BV_{CEO}	I_C=10mA (3414, 3415)	25		V
BV_{CEO}	I_C=10mA (3416, 3417)	50		V
$V_{CE(SAT)}$	I_C=50mA, I_B=3.0mA		0.3	V
$V_{BE(SAT)}$	I_C=50mA, I_B=3.0mA		0.85	V
h_{FE}	V_{CE}=4.5V, I_C=2.0mA (3414, 3416)	75	225	
h_{FE}	V_{CE}=4.5V, I_C=2.0mA (3415, 3417)	180	540	
h_{fe}	V_{CE}=4.5V, I_C=2.0mA, f=1.0kHz (3414, 3416)	75		
h_{fe}	V_{CE}=4.5V, I_C=2.0mA, f=1.0kHz (3415, 3417)	180		

R3 (10-September 2013)

2N3414 MPS3414
2N3415 MPS3415
2N3416 MPS3416
2N3417 MPS3417

SILICON
NPN TRANSISTORS

TO-92 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

2N3414 THRU 2N3417
LEAD CODE:
1) Emitter
2) Collector
3) Base

MPS3414 THRU MPS3417
LEAD CODE:
1) Emitter
2) Base
3) 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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