

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

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

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE*

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3414, MPS3414 series types are silicon NPN planar epitaxial transistors designed for small signal general purpose and switching applications.

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

	<u>SYMBOL</u>	<u>2N3414</u> <u>MPS3414</u>	<u>2N3415</u> <u>MPS3415</u>	<u>2N3416</u> <u>MPS3416</u>	<u>2N3417</u> <u>MPS3417</u>	<u>UNIT</u>
Collector-Base Voltage	V _{CB0}		25		50	V
Emitter-Base Voltage	V _{EB0}		5.0		5.0	V
Collector-Emitter Voltage	V _{CE0}		25		50	V
Collector Current-Continuous	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)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNIT</u>
I _{CB0}	V _{CB} =25V (3414, 3415)		100	nA
I _{CB0}	V _{CB} =50V (3416, 3417)		100	nA
I _{EB0}	V _{EB} =5.0V		100	nA
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	

*2N3414 thru 2N3417: ECB LEAD CODE

*MPS3414 thru MPS3417: EBC LEAD CODE