Data Sheet

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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 (TA=25°C unless otherwise noted)

	SYMBOL	2N3414 MPS3414	2N3415 MPS3415	2N3416 MPS3416	2N3417 MPS3417	UNIT
Collector-Base Voltage	V_{CBO}	25		50		V
Emitter-Base Voltage	V_{EBO}	5.0		5.0		V
Collector-Emitter Voltage	V_{CEO}	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 (TA=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CBO}	V_{CB}=25V (3414, 3415)		100	nA
I_{CBO}	V_{CB}=50V (3416, 3417)		100	nA
I_{EBO}	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