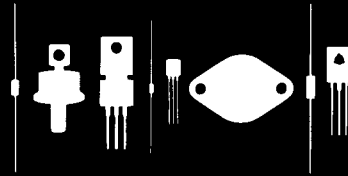


Central  
Semiconductor Corp.

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145 Adams Avenue  
Hauppauge, New York 11788



2N5814 2N5816 2N5818 NPN  
2N5815 2N5817 2N5819 PNP

COMPLEMENTARY SILICON  
TRANSISTORS

T0-92-18R CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5814 Series types are epoxy molded Complementary Silicon Small Signal Transistors manufactured by the epitaxial Planar process designed for general purpose amplifier applications where a high collector current rating is required.

MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$  unless otherwise noted)

	SYMBOL		UNIT
Collector Base Voltage	$V_{CB0}$	50	V
Collector Emitter Voltage	$V_{CES}$	50	V
Collector Emitter Voltage	$V_{CEO}$	40	V
Emitter Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	750	mA
Collector Current (PEAK)	$I_{CM}$	1000	mA
Power Dissipation	$P_D$	625	mW
Power Dissipation ( $T_C=25^\circ\text{C}$ )	$P_D$	1500	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 TO +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
$T_{CB0}$	$V_{CB}=25\text{V}$		TOO	nA
$I_{CB0}$	$V_{CB}=25\text{V}, T_A=100^\circ\text{C}$		15	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$		10	$\mu\text{A}$
$BV_{CES}$	$I_C=10\mu\text{A}$	50		V
$BV_{CEO}$	$I_C=10\text{mA}$	40		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.75	V
$V_{BE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.2	V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$	0.60	1.1	V
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=2.0\text{mA}$ (2N5814, 2N5815)	60	120	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=2.0\text{mA}$ (2N5816, 2N5817)	100	200	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=2.0\text{mA}$ (2N5818, 2N5819)	150	300	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$ (2N5814, 2N5815)	20	-	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$ (2N5816, 2N5817)	25	-	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$ (2N5818, 2N5819)	25	-	
$f_T$	$V_{CE}=2.0\text{V}, I_C=50\text{mA}, f=20\text{MHz}$ (2N5814, 2N5815)	100		MHz
$f_T$	$V_{CE}=2.0\text{V}, I_C=50\text{mA}, f=20\text{MHz}$ (2N5816, 2N5817)	120		MHz
$f_T$	$V_{CE}=2.0\text{V}, I_C=50\text{mA}, f=20\text{MHz}$ (2N5818, 2N5819)	135		MHz
$C_{ob}$	$V_{CB}=10\text{V}, f=1.0\text{MHz}$		15	pF
$C_{ib}$	$V_{EB}=0.5\text{V}, f=1.0\text{MHz}$		55	pF

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145 Adams Avenue  
Hauppauge, NY 11788 USA  
Tel: (631) 435-1110 • Fax: (631) 435-1824  
www.centralsemi.com

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