2N6515 2N6516 2N6517 NPN
2N6518 2N6519 2N6520 PNP

COMPLEMENTARY SILICON HIGH VOLTAGE TRANSISTORS

TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6515, 2N6518 series devices are complementary silicon transistors designed for high voltage driver and amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**	**2N6515 2N6518**	**2N6516 2N6519**	**2N6517 2N6520**	**UNITS**
Collector-Base Voltage	V_{CBO}	250	300	350	V
Collector-Emitter Voltage	V_{CEO}	250	300	350	V
Emitter-Base Voltage (NPN)	V_{EBO}		6.0		V
Emitter-Base Voltage (PNP)	V_{EBO}		5.0		V
Continuous Collector Current	I_C		500		mA
Continuous Base Current	I_B		250		mA
Power Dissipation	P_D		625		mW
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C)		**2N6515 2N6518**		**2N6516 2N6519**		**2N6517 2N6520**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=150V	-	50	-	-	-	-	nA
I_{CBO}	V_{CB}=200V	-	-	-	50	-	-	nA
I_{CBO}	V_{CB}=250V	-	-	-	-	-	50	nA
I_{EBO}	V_{EB}=5.0V (NPN)	-	50	-	50	-	50	nA
I_{EBO}	V_{EB}=4.0V (PNP)	-	50	-	50	-	50	nA
BV_{CBO}	I_C=100μA	250	-	300	-	350	-	V
BV_{CEO}	I_C=1.0mA	250	-	300	-	350	-	V
BV_{EBO}	I_E=10μA (NPN)	6.0	-	6.0	-	6.0	-	V
BV_{EBO}	I_E=10μA (PNP)	5.0	-	5.0	-	5.0	-	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA	-	0.30	-	0.30	-	0.30	V
$V_{CE(SAT)}$	I_C=20mA, I_B=2.0mA	-	0.35	-	0.35	-	0.35	V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA	-	0.50	-	0.50	-	0.50	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA	-	1.0	-	1.0	-	1.0	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	-	0.75	-	0.75	-	0.75	V
$V_{BE(SAT)}$	I_C=20mA, I_B=2.0mA	-	0.85	-	0.85	-	0.85	V
$V_{BE(SAT)}$	I_C=30mA, I_B=3.0mA	-	0.90	-	0.90	-	0.90	V
$V_{BE(ON)}$	V_{CE}=10V, I_C=100mA	-	2.0	-	2.0	-	2.0	V
h_{FE}	V_{CE}=10V, I_C=1.0mA	35	-	30	-	20	-	
h_{FE}	V_{CE}=10V, I_C=10mA	50	-	45	-	30	-	
h_{FE}	V_{CE}=10V, I_C=30mA	50	300	45	270	30	200	
h_{FE}	V_{CE}=10V, I_C=50mA	45	220	40	200	20	200	
h_{FE}	V_{CE}=10V, I_C=100mA	25	-	20	-	15	-	

R2 (18-January 2016)

2N6515 2N6516 2N6517 NPN
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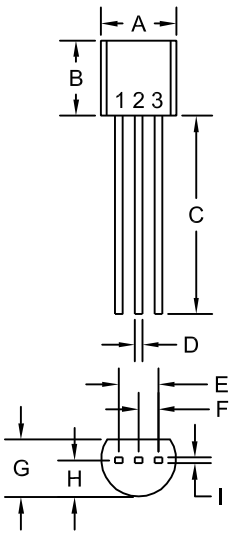
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	V_{CE}=20V, I_C=10mA, f=20MHz	40	200	MHz
C_{cb}	V_{CB}=20V, I_E=0, f=1.0MHz		6.0	pF
C_{eb}	V_{EB}=0.5V, I_C=0, f=1.0MHz (NPN)		80	pF
C_{eb}	V_{EB}=0.5V, I_C=0, f=1.0MHz (PNP)		100	pF
t_{on}	V_{CC}=100V, V_{BE}=2.0V, I_C=50mA, I_{B1}=10mA		200	ns
t_{off}	V_{CC}=100V, I_C=50mA, I_{B1}=I_{B2}=10mA		3.5	µs

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)

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

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