

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors
www.centrasemi.com

2N6315 2N6316 NPN
2N6317 2N6318 PNP

COMPLEMENTARY SILICON
POWER TRANSISTORS

JEDEC TO-66 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6315 Series types are Complementary Silicon Power Transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case, designed for general purpose amplifier and switching applications.

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

	SYMBOL	2N6315	2N6316	UNITS
		2N6317	2N6318	
Collector-Base Voltage	V _{CB0}	60	80	V
Collector-Emitter Voltage	V _{CEO}	60	80	V
Emitter-Base Voltage	V _{EBO}		5.0	V
Collector Current	I _C		7.0	A
Peak Collector Current	I _{CM}		15	A
Base Current	I _B		2.0	A
Power Dissipation	P _D		90	W
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +200		°C
Thermal Resistance	θ _{JC}	1.95		°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

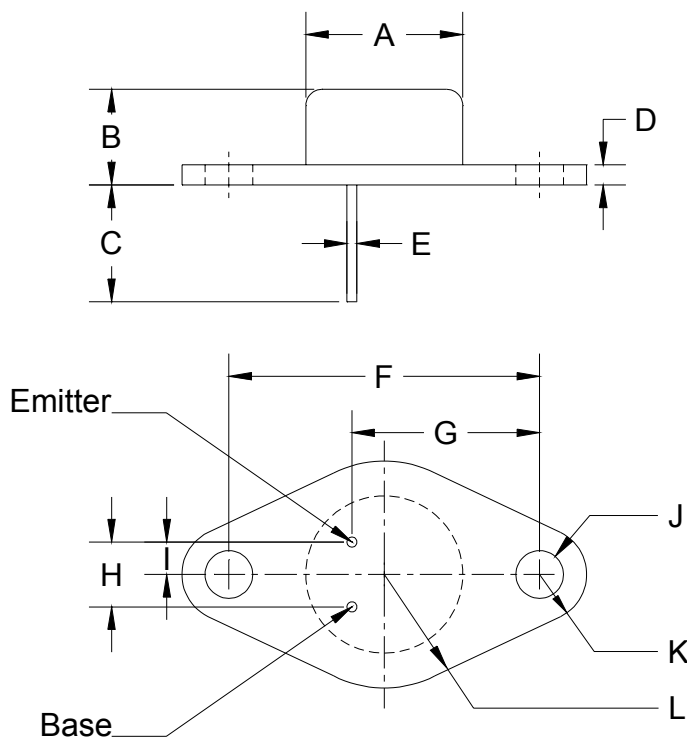
SYMBOL	TEST CONDITIONS	2N6315 2N6317		2N6316 2N6318		UNITS
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} = Rated V _{CB0}		0.25		0.25	mA
I _{CEO}	V _{CE} = ½ Rated V _{CEO}		0.50		0.50	mA
I _{CEV}	V _{CE} = Rated V _{CEO} , V _{BE(OFF)} =1.5V		0.25		0.25	mA
I _{CEV}	V _{CE} = Rated V _{CEO} , V _{BE(OFF)} =1.5V, T _C =150°C		2.0		2.0	mA
I _{EBO}	V _{EB} =5.0V		1.0		1.0	mA
BV _{CEO}	I _C =100mA	60		80		V
V _{CE(SAT)}	I _C =4.0A, I _B =0.4A		1.0		1.0	V
V _{CE(SAT)}	I _C =7.0A, I _B =1.75A		2.0		2.0	V
V _{BE(SAT)}	I _C =7.0A, I _B =1.75A		2.5		2.5	V
V _{BE(ON)}	V _{CE} =4.0V, I _C =2.5A		1.5		1.5	V
h _{FE}	V _{CE} =4.0V, I _C =0.5A	35		35		
h _{FE}	V _{CE} =4.0V, I _C =2.5A	20	100	20	100	
h _{FE}	V _{CE} =4.0V, I _C =7.0A	4.0		4.0		

(SEE REVERSE SIDE)

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

SYMBOL	TEST CONDITIONS	2N6315 2N6317		2N6316 2N6318		UNITS
		MIN	MAX	MIN	MAX	
h_{fe}	$V_{CE}=4.0\text{V}$, $I_C=500\text{mA}$, $f=1.0\text{kHz}$	20		20		
f_T	$V_{CE}=10\text{V}$, $I_C=250\text{mA}$, $f=1.0\text{MHz}$	4.0		4.0		MHz
C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1.0\text{MHz}$ (2N6315, 2N6316)		300		300	pF
C_{ob}	$V_{CB}=10\text{V}$, $I_E=0$, $f=1.0\text{MHz}$ (2N6317, 2N6318)		200		200	pF
t_r	$V_{CC}=30\text{V}$, $I_C=2.5\text{A}$, $I_{B1}=I_{B2}=0.25\text{A}$		0.7		0.7	μs
t_{off}	$V_{CC}=30\text{V}$, $I_C=2.5\text{A}$, $I_{B1}=I_{B2}=0.25\text{A}$		1.8		1.8	μs

TO-66 PACKAGE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.470	0.500	11.94	12.70
B	0.250	0.340	6.35	8.64
C	0.360	-	9.14	-
D	0.050	0.075	1.27	1.91
E (DIA)	0.028	0.034	0.71	0.86
F	0.958	0.962	24.33	24.43
G	0.570	0.590	14.48	14.99
H	0.190	0.210	4.83	5.33
I	0.093	0.107	2.36	2.72
J (DIA)	0.142	0.152	3.61	3.86
K (RAD)	0.145		3.68	
L (RAD)	0.350		8.89	

TO-66 (REV:R1)

R1

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