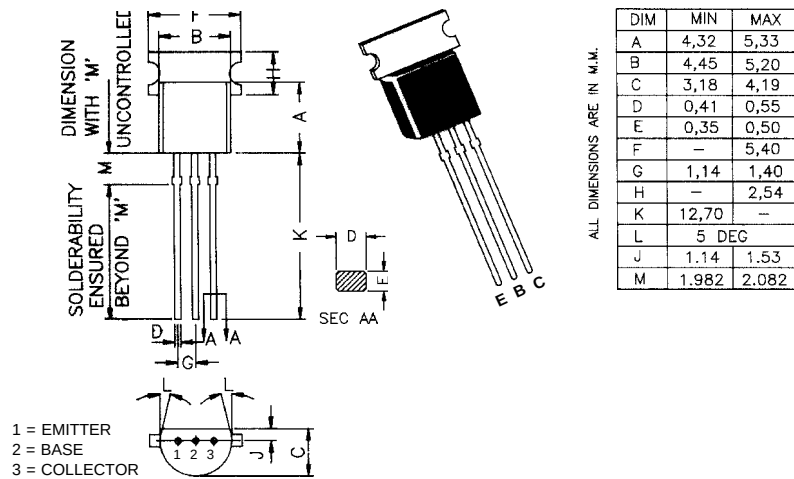


Boca Semiconductor Corp.
BSC
<http://www.bocasemi.com>

NPN SILICON PLANAR EPITAXIAL TRANSISTORS

Designed for General purpose Medium Power Amplifier and Switching Circuits.



ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	2N6714	2N6715	2N6716	Units
Collector-Emitter Voltage	V_{CEO}	30	40	60	V
Collector-Base Voltage	V_{CBO}	40	50	60	V
Emitter-Base Voltage	V_{EBO}	-	5.0	-	V
Collector Current – Continuous	I_C	-	1.5	-	A
Power Dissipation @ $T_a=25^\circ\text{C}$	P_D	-	850	-	mW
Operating And Storage Junction Temperature Range	T_j, T_{stg}	-55 to +150			$^\circ\text{C}$

2N6714
2N6715
2N6716

ELECTRICAL CHARACTERISTICS (*Ta =25°C unless otherwise specified*)

Description		Symbol	Min.	Max.	Unit
Collector Cutoff Current					
$V_{CB}=40V, I_E=0$	2N6714	I_{CBO}	-	100	nA
$V_{CB}=50V, I_E=0$	2N6715		-	100	nA
$V_{CB}=40V, I_E=0$	2N6716		-	100	nA
D.C. Current Gain					
$I_C=10mA, V_{CE}=1V$	2N6714/6715	h_{FE}	55	-	
$I_C=100mA, V_{CE}=1V$	2N6714/6715		60	-	
$I_C=1A, V_{CE}=1V$	2N6714/6715		50	250	
$I_C=50mA, V_{CE}=1V$	2N6716		80	-	
$I_C=250mA, V_{CE}=1V$	2N6716		50	250	
$I_C=500mA, V_{CE}=1V$	2N6716		20	-	
Collector-Emitter Saturation Voltage					
$I_C=1A, I_B=100mA$	2N6714/6715	$V_{CE(sat)}$	-	0.5	V
$I_C=250mA, I_B=25mA$	2N6716		-	0.35	V
Base Emitter on Voltage					
$I_C=1A, V_{CE}=1V$	2N6714/6715	$V_{BE(on)}$	-	1.2	V
DYNAMIC CHARACTERISTICS					
Output Capacitance					
$V_{CB}=10V, I_E=0,$ $f=1MHz$	ALL	C_{ob}	-	20	pF
Current-Gain-Bandwidth Product					
$I_C=50mA, V_{CE}=1V$	2N6714/6716	f_T	50	500	MHz
	2N6715		50	400	MHz