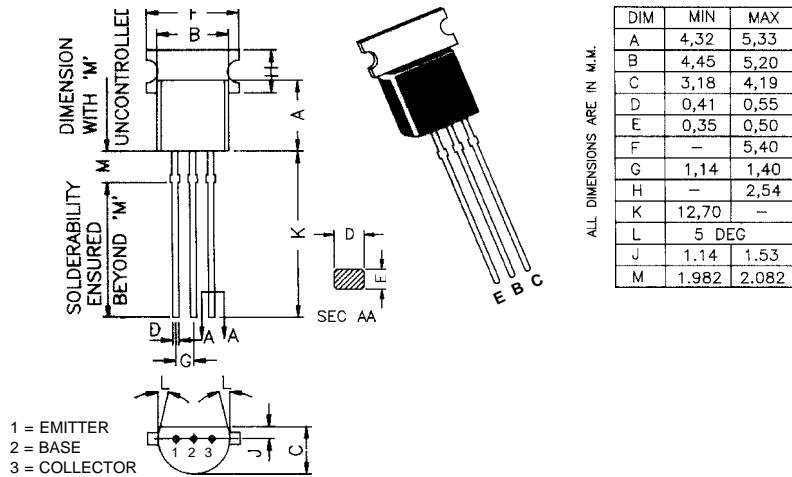


Boca Semiconductor Corp.
BSC
<http://www.bocasemi.com>

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			$^\circ\text{C}$

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

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