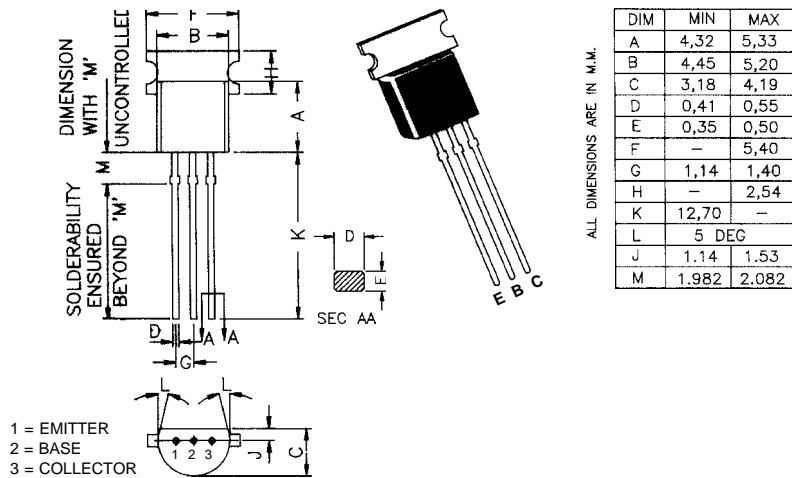


TO-237 Plastic Package

**2N6714
2N6715
2N6716**

NPN SILICON PLANAR EPITAXIAL TRANSISTORS

Designed for General purpose Medium Power Amplifier and Switching Circuits.



ALL DIMENSIONS ARE IN M.M.

DIM	MIN	MAX
A	4,32	5,33
B	4,45	5,20
C	3,18	4,19
D	0,41	0,55
E	0,35	0,50
F	—	5,40
G	1,14	1,40
H	—	2,54
K	12,70	—
L	5 DEG	—
J	1,14	1,53
M	1,982	2,082

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 @ $T_a=25^\circ C$	P_D	-	850	-	mW
Operating And Storage Junction Temperature Range	T_j, T_{stg}	-55 to +150			$^\circ C$

2N6714
2N6715
2N6716

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

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/ CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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