



**ELECTRONICS, INC.**  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## 2N6714

### Silicon NPN Transistor

### General Purpose Power Amp, Switch

### TO-237 Type Package

**Description:**

The 2N6714 is a silicon NPN power transistors in a TO-237 type package designed for general purpose power amplifier and switching applications.

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Collector-Base Voltage, $V_{CBO}$ .....	40V
Collector-Emitter Voltage, $V_{CEO}$ .....	30V
Emitter-Base Voltage, $V_{EBO}$ .....	5V
Continuous Collector Current, $I_C$ .....	2A
Continuous Base Current, $I_B$ .....	500mA
Power Dissipation, $P_D$	
$T_A = +25^\circ\text{C}$ .....	1W
$T_C = +25^\circ\text{C}$ .....	2W
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+150^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-65^\circ$ to $+150^\circ\text{C}$
Thermal Resistance, Junction-to-Ambient, $R_{thJA}$ .....	$125^\circ\text{C/W}$
Thermal Resistance, Junction-to-Case, $R_{thJC}$ .....	$62.5^\circ\text{C/W}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}$	40	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$	30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}$	5	-	-	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 40\text{V}$	-	-	0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}$	-	-	0.1	$\mu\text{A}$
DC Current Gain	h <sub>FE</sub>	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$	60	-	-	
		$V_{CE} = 1\text{V}, I_C = 1\text{A}$	50	-	250	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 100\text{mA}$	-	-	0.5	V
Base-Emitter ON Voltage	$V_{BE(on)}$	$I_C = 1\text{A}, V_{CE} = 1\text{V}$	-	-	1.2	V
Transition Frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 50\text{mA}, f = 20\text{MHz}$	50	-	500	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	-	30	pF

