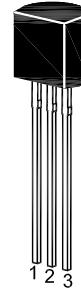


# 2N6520

## PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

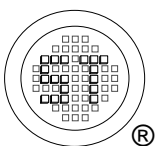
On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Base 3. Collector  
TO-92 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	350	V
Collector Emitter Voltage	$-V_{CEO}$	350	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	500	mA
Power Dissipation	$P_{tot}$	625	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$



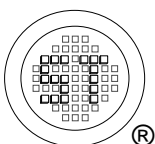
**SEMTECH ELECTRONICS LTD.**



# 2N6520

## Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $-V_{CE} = 10\text{ V}$ , $-I_C = 1\text{ mA}$	$h_{FE}$	20	-	-
at $-V_{CE} = 10\text{ V}$ , $-I_C = 10\text{ mA}$	$h_{FE}$	30	-	-
at $-V_{CE} = 10\text{ V}$ , $-I_C = 30\text{ mA}$	$h_{FE}$	30	200	-
at $-V_{CE} = 10\text{ V}$ , $-I_C = 50\text{ mA}$	$h_{FE}$	20	200	-
at $-V_{CE} = 10\text{ V}$ , $-I_C = 100\text{ mA}$	$h_{FE}$	15	-	-
Collector Base Cutoff Current at $-V_{CB} = 250\text{ V}$	$-I_{CBO}$	-	50	nA
Emitter Base Cutoff Current at $-V_{EB} = 4\text{ V}$	$-I_{EBO}$	-	50	nA
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	350	-	V
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	350	-	V
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage				
at $-I_C = 10\text{ mA}$ , $-I_B = 1\text{ mA}$	$-V_{CE(sat)}$	-	0.3	V
at $-I_C = 20\text{ mA}$ , $-I_B = 2\text{ mA}$	$-V_{CE(sat)}$	-	0.35	V
at $-I_C = 30\text{ mA}$ , $-I_B = 3\text{ mA}$	$-V_{CE(sat)}$	-	0.5	V
at $-I_C = 50\text{ mA}$ , $-I_B = 5\text{ mA}$	$-V_{CE(sat)}$	-	1	V
Base Emitter Saturation Voltage				
at $-I_C = 10\text{ mA}$ , $-I_B = 1\text{ mA}$	$-V_{BE(sat)}$	-	0.75	V
at $-I_C = 20\text{ mA}$ , $-I_B = 2\text{ mA}$	$-V_{BE(sat)}$	-	0.85	V
at $-I_C = 30\text{ mA}$ , $-I_B = 3\text{ mA}$	$-V_{BE(sat)}$	-	0.9	V
Base Emitter On Voltage at $-V_{CE} = 10\text{ V}$ , $-I_C = 100\text{ mA}$	$-V_{BE(on)}$	-	2	V
Gain Bandwidth Product at $-V_{CE} = 20\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 20\text{ MHz}$	$f_T$	40	200	MHz
Collector Base Capacitance at $-V_{CB} = 20\text{ V}$ , $f = 1\text{ MHz}$	$C_{cb}$	-	6	pF



**SEMTECH ELECTRONICS LTD.**



ISO/TS 16949 : 2009 Certificate No. 16071300  
 ISO14001 : 2004 Certificate No. 7116  
 ISO 9001 : 2008 Certificate No. 5071940  
 BS-OHSAS 18001 : 2007 Certificate No. 7116  
 IECQ QC 080000 Certificate No. PRC-16294-1621