

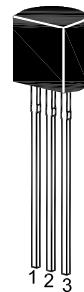
2N2222 / 2N2222A

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into one group according to its DC current gain.

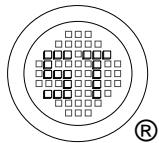
On special request, these transistors can be manufactured in different pin configurations.



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

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

Parameter	Symbol	Value	Unit
Collector Base Voltage 2N2222 2N2222A	V_{CBO}	60 75	V
Collector Emitter Voltage 2N2222 2N2222A	V_{CEO}	30 40	V
Emitter Base Voltage 2N2222 2N2222A	V_{EBO}	5 6	V
Collector Current	I_C	600	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C



SEMTECH ELECTRONICS LTD.

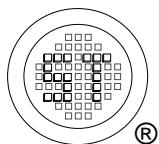


Dated : 12/08/2016 Rev:02

2N2222 / 2N2222A

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 10 \text{ V}$, $I_C = 0.1 \text{ mA}$ at $V_{CE} = 10 \text{ V}$, $I_C = 1 \text{ mA}$ at $V_{CE} = 10 \text{ V}$, $I_C = 10 \text{ mA}$ at $V_{CE} = 10 \text{ V}$, $I_C = 150 \text{ mA}$ at $V_{CE} = 10 \text{ V}$, $I_C = 500 \text{ mA}$	h_{FE}	35	-	-
	h_{FE}	50	-	-
	h_{FE}	75	-	-
	h_{FE}	100	300	-
	h_{FE}	30	-	-
	h_{FE}	40	-	-
Collector Base Cutoff Current at $V_{CB} = 50 \text{ V}$ at $V_{CB} = 60 \text{ V}$	I_{CBO}	-	10	nA
Collector Base Breakdown Voltage at $I_C = 10 \mu\text{A}$	$V_{(BR)CBO}$	60	-	V
Collector Emitter Breakdown Voltage at $I_C = 10 \text{ mA}$	$V_{(BR)CEO}$	30	-	V
Emitter Base Breakdown Voltage at $I_E = 10 \mu\text{A}$	$V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $I_C = 150 \text{ mA}$, $I_B = 15 \text{ mA}$ at $I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$	$V_{CE(sat)}$	-	0.4 0.3 1.6 1	V
Base Emitter Saturation Voltage at $I_C = 150 \text{ mA}$, $I_B = 15 \text{ mA}$ at $I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$	$V_{BE(sat)}$	- 0.6 - -	1.3 1.2 2.6 2	V
Gain Bandwidth Product at $I_C = 20 \text{ mA}$, $V_{CE} = 20 \text{ V}$, $f = 100 \text{ MHz}$	f_T	250	-	MHz
Collector Output Capacitance at $V_{CB} = 10 \text{ V}$, $f = 1 \text{ MHz}$	C_{ob}	-	8	pF



SEMTECH ELECTRONICS LTD.



ISO/TS 16949 : 2009
Certificate No. 18073360



ISO 14001 : 2004
Certificate No. 7116



ISO 9001 : 2008
Certificate No. 50713410



BS-OHSAS 18001 : 2007
Certificate No. 7116

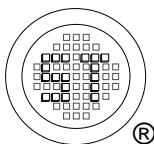
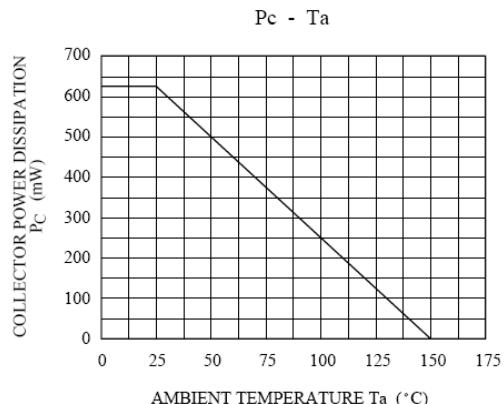
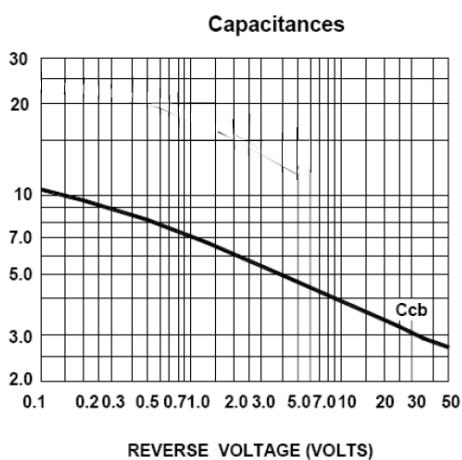
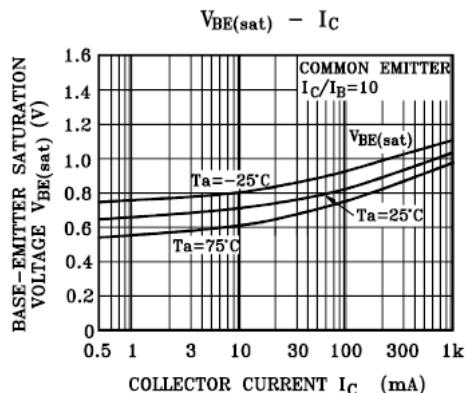
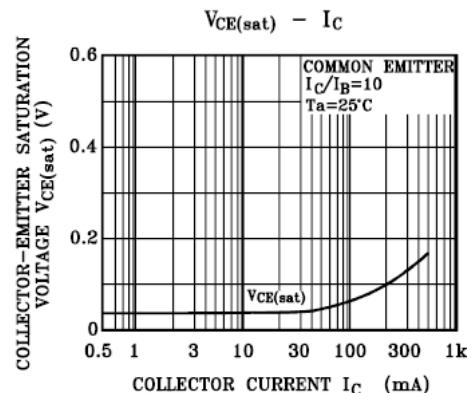
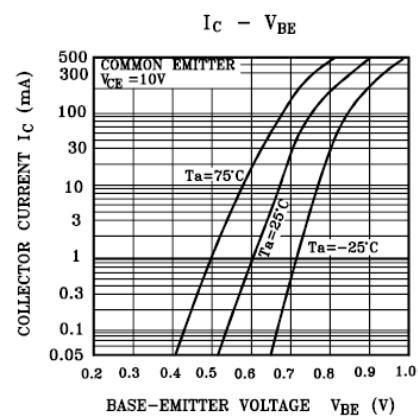
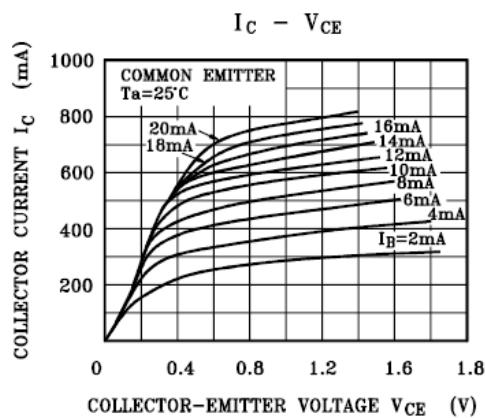
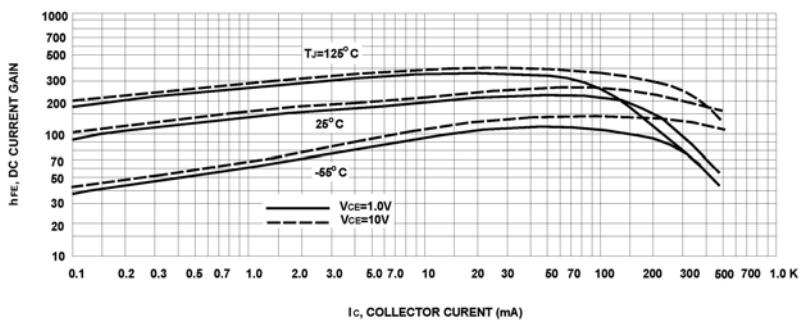


IECQ QC 080000
Certificate No. PRC-HSPM-103-1

Dated : 12/08/2016 Rev:02

2N2222 / 2N2222A

Figure 1. DC Current Gain



SEMTECH ELECTRONICS LTD.

