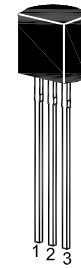


ST 2SC4115

NPN Silicon Epitaxial Planar Transistor

The transistor is subdivided into three groups, Q, R and S, according to its DC current gain.

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



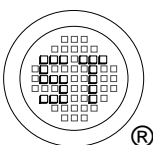
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Collector Current (Single Pulse $P_W = 10\text{ ms}$)	I_{CP}	5	A
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

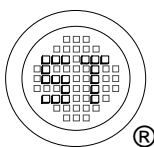
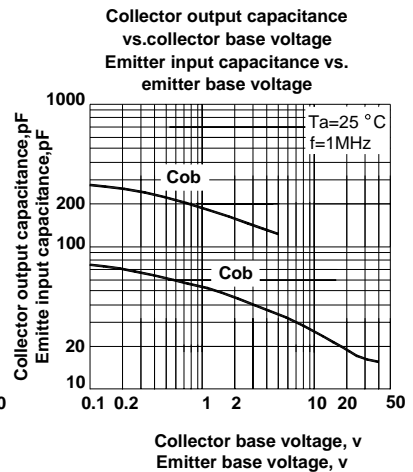
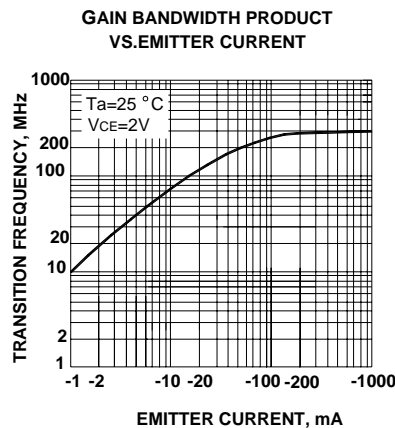
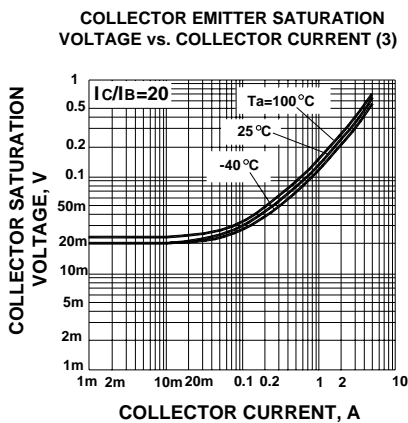
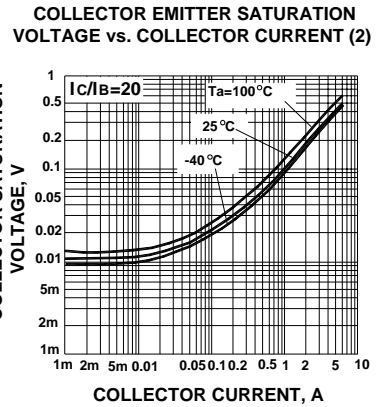
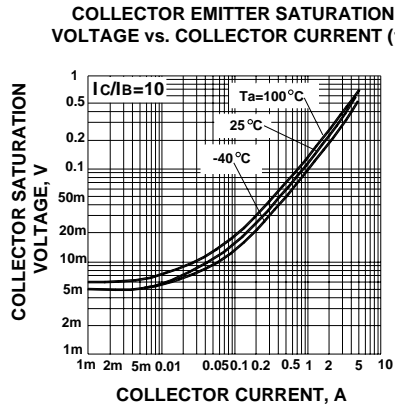
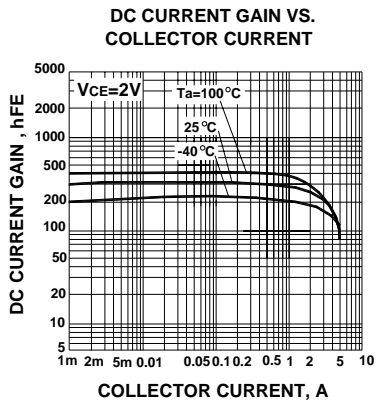
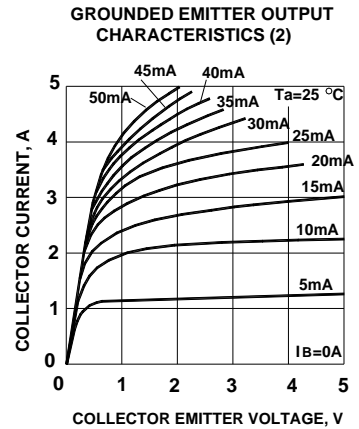
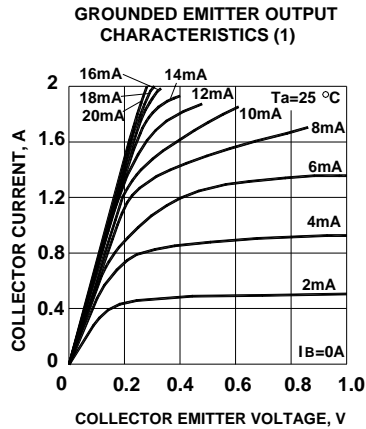
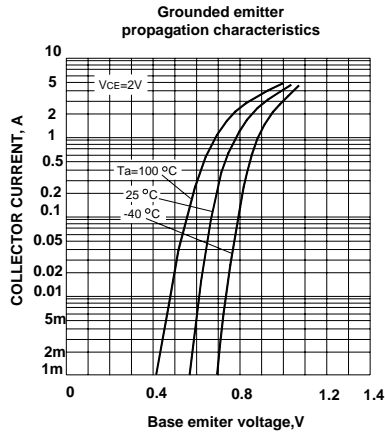
Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 2\text{ V}$, $I_C = 100\text{ mA}$ Current Gain Group	Q	h_{FE}	120	-	270	-
	R	h_{FE}	180	-	390	-
	S	h_{FE}	270	-	560	-
Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	0.1	μA	
Collector Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	0.1	μA	
Collector Base Breakdown Voltage at $I_C = 50\text{ }\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	20	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 50\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 2\text{ A}$, $I_B = 100\text{ mA}$	$V_{CE(sat)}$	-	0.2	0.5	V	
Transition Frequency at $V_{CE} = 2\text{ V}$, $I_E = -500\text{ mA}$, $f = 100\text{ MHz}$	f_T	-	290	-	MHz	
Collector Output Capacitance at $V_{CE} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	25	-	pF	



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