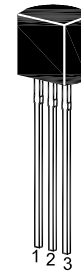


2SA1015

PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into three groups, O, Y and G, L, according to its DC current gain. As complementary type the NPN transistor 2SC1815 is recommended.



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

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	50	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	50	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	150	mA
Base Current	$-I_{\text{B}}$	50	mA
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{\text{CE}} = 6\text{ V}$, $-I_{\text{C}} = 2\text{ mA}$ at $-V_{\text{CE}} = 6\text{ V}$, $-I_{\text{C}} = 150\text{ mA}$ Current Gain Group O Y G L	h_{FE}	70	140	-
	h_{FE}	120	240	-
	h_{FE}	200	400	-
	h_{FE}	350	700	-
	h_{FE}	25	-	-
Collector Base Breakdown Voltage at $-I_{\text{C}} = 100\text{ }\mu\text{A}$	$-V_{(\text{BR})\text{CBO}}$	50	-	V
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 10\text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	50	-	V
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 10\text{ }\mu\text{A}$	$-V_{(\text{BR})\text{EBO}}$	5	-	V
Collector Base Cutoff Current at $-V_{\text{CB}} = 50\text{ V}$	$-I_{\text{CBO}}$	-	0.1	μA
Emitter Cutoff Current at $-V_{\text{EB}} = 5\text{ V}$	$-I_{\text{EBO}}$	-	0.1	μA
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 100\text{ mA}$, $-I_{\text{B}} = 10\text{ mA}$	$-V_{\text{CE}(\text{sat})}$	-	0.3	V
Base Emitter Saturation Voltage at $-I_{\text{C}} = 100\text{ mA}$, $-I_{\text{B}} = 10\text{ mA}$	$-V_{\text{BE}(\text{sat})}$	-	1.1	V
Gain Bandwidth Product at $-V_{\text{CE}} = 10\text{ V}$, $-I_{\text{C}} = 1\text{ mA}$	f_{T}	80	-	MHz
Output Capacitance at $-V_{\text{CB}} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{OB}	-	7	pF

