

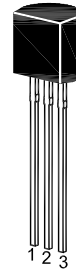
2SA1300

PNP Silicon Epitaxial Planar Transistor

for strobo flash and medium power amplifier applications.

The transistor is subdivided into three groups, Y, G and L, 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 ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	20	V
Collector Emitter Voltage	$-V_{CES}$	20	V
Collector Emitter Voltage	$-V_{CEO}$	10	V
Emitter Base Voltage	$-V_{EBO}$	6	V
Collector Current	$-I_C$	2	A
Collector Current Pulsed (PW = 10 ms)	$-I_{CP}$	5	A
Base Current	$-I_B$	0.2	A
Power Dissipation	P_{tot}	750	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.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 0.5\text{ A}$ at $-V_{CE} = 1\text{ V}$, $-I_C = 4\text{ A}$ Current Gain Group Y G L	h_{FE}	140	-	280	-
	h_{FE}	200	-	400	-
	h_{FE}	300	-	600	-
	h_{FE}	60	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 20\text{ V}$	$-I_{CBO}$	-	-	0.1	μA
Emitter Base Cutoff Current at $-V_{EB} = 6\text{ V}$	$-I_{EBO}$	-	-	0.1	μA
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	10	-	-	V
Emitter Base Breakdown Voltage at $-I_E = 1\text{ mA}$	$-V_{(BR)EBO}$	6	-	-	V
Collector to Emitter Saturation Voltage at $-I_C = 2\text{ A}$, $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	-	0.5	V
Base-Emitter Voltage at $-V_{CE} = 1\text{ V}$, $-I_C = 2\text{ A}$	$-V_{BE}$	-	-	1.5	V
Transition Frequency at $-V_{CE} = 1\text{ V}$, $-I_C = 0.5\text{ A}$	f_T	-	140	-	MHz
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	50	-	pF

