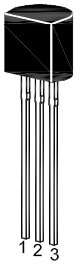
2SA933

PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into three groups, O, Y and S, according to its DC current gain. As complementary type the NPN transistor 2SC945 is recommended.
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 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50	V
Collector Emitter Voltage	$-V_{CEO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter			Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 6 V, $-I_C$ = 1 mA	Current Gain Group	O Y S	 h_{FE} h_{FE} h_{FE}	 120 180 270	 - - -	 270 390 560	 - - -
Collector Base Cutoff Current at $-V_{CB}$ = 30 V			$-I_{CBO}$	-	-	0.5	µA
Emitter Base Cutoff Current at $-V_{EB}$ = 4 V			$-I_{EBO}$	-	-	0.5	µA
Collector Base Breakdown Voltage at $-I_C$ = 50 µA			$-V_{(BR)CBO}$	50	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA			$-V_{(BR)CEO}$	40	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 50 µA			$-V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 50 mA, $-I_B$ = 5 mA			$-V_{CE(sat)}$	-	-	0.5	V
Gain Bandwidth Product at $-V_{CE}$ = 12 V, $-I_C$ = 2 mA			f_T	-	140	-	MHz
Output Capacitance at $-V_{CB}$ = 12 V, f = 1 MHz			C_{OB}	-	-	5	pF