



Micro Commercial Components

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2SA933AS-Q
2SA933AS-R
2SA933AS-S

Features

- Lead Free Finish/Rohs Compliant ("P" Suffix designates Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Marking: type number
- Power dissipation: $P_{CM} = 0.2W(T_{amb}=25^{\circ}C)$
- Collector current: $I_{CM} = -0.15A$
- Collector-base voltage: $V_{(BR)CBO} = -60V$
- Operating and storage junction temperature range
 $T_J, T_{stg}: -55^{\circ}C$ to $+150^{\circ}C$

Electrical Characteristics @ 25°C Unless Otherwise Specified

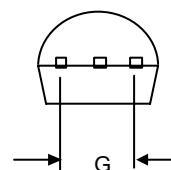
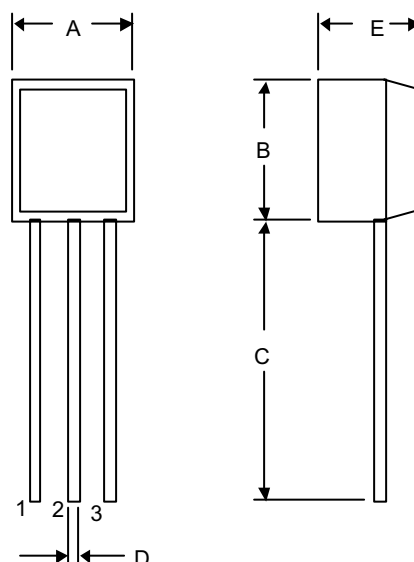
Symbol	Parameter	Min	Typ	Max	Unit
V_{CEO}	Collector-Emitter Voltage ($I_C = -50 \mu A, I_E = 0$)	-50	---	---	V
V_{CBO}	Collector-Base Voltage ($I_C = -1 \mu A, I_B = 0$)	-60	---	---	V
V_{EBO}	Emitter-Base Voltage ($I_E = -50 \mu A, I_C = 0$)	-6.0	---	---	V
I_{CBO}	Collector cut-off Current ($V_{CB} = -20V, I_E = 0$)	---	---	-0.1	μA
I_{EBO}	Emitter cut-off Current ($V_{EB} = -5V, I_C = 0$)	---	---	-0.1	μA
h_{FE}	DC current gain ($V_{CE} = -2V, I_C = -0.1A$)	120	---	560	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C = -2A, I_B = -0.1A$)	---	---	-0.5	V
f_T	Transition Frequency ($V_{CE} = 2.0Vdc, I_C = 0.5Adc$)	120	---	---	MHz

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	120-270	180-390	270-560

PNP Plastic-Encapsulate Transistors

TO-92S



1.EMITTER
2.COLLECTOR
3.BASE

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A		.16		4.00	
B		.12		3.00	
C	.59	---	15.00	---	
D		.02		0.45	
E		.08		2.00	
G		.20		5.00	

Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Bag

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