

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- High Voltage Driver Applications

## MARKING

ZTA94

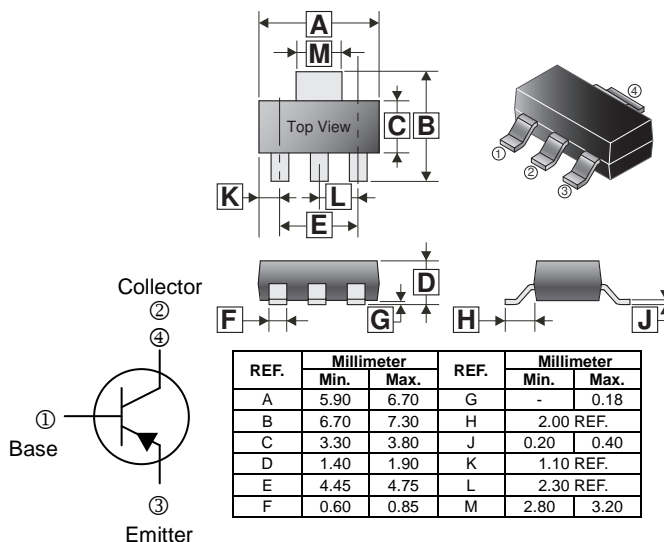
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-223	2.5K	13 inch

## ORDER INFORMATION

Part Number	Type
2SA94-C	Lead (Pb)-free and Halogen-free

### SOT-223



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-400	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-400	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current-Continuous	I <sub>C</sub>	-0.2	A
Collector Current-Pulsed	I <sub>CM</sub>	-0.3	A
Collector Power Dissipation	P <sub>D</sub>	1	W
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	125	°C/W
Junction, Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Min.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-400	-	V	I <sub>C</sub> = -0.1mA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	-400	-	V	I <sub>C</sub> = -1mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-5	-	V	I <sub>E</sub> = -0.1mA, I <sub>C</sub> =0
Collector Cut-Off Current	I <sub>CBO</sub>	-	-100	nA	V <sub>CB</sub> = -400V, I <sub>E</sub> =0
	I <sub>CEO</sub>	-	-5	μA	V <sub>CE</sub> = -400V, I <sub>B</sub> =0
Emitter Cut-Off Current	I <sub>EBO</sub>	-	-100	nA	V <sub>EB</sub> = -4V, I <sub>C</sub> =0
DC Current Gain	h <sub>FE</sub>	80	300		V <sub>CE</sub> = -10V, I <sub>C</sub> = -10mA
		70	-		V <sub>CE</sub> = -10V, I <sub>C</sub> = -1mA
		60	-		V <sub>CE</sub> = -10V, I <sub>C</sub> = -100mA
		80	-		V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	-	-0.2	V	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA
		-	-0.3		I <sub>C</sub> = -50mA, I <sub>B</sub> = -5mA
Base-Emitter Voltage	V <sub>BE(on)</sub>	-	-0.75	V	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA
Transition Frequency	f <sub>T</sub>	50	-	MHZ	V <sub>CE</sub> = -20V, I <sub>C</sub> = -10mA, f=100MHZ

**CHARACTERISTIC CURVES**

