



Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311

Phone: (818) 701-4933

Fax: (818) 701-4939

MMSTA92

PNP Small Signal Transistors

Features

- Epitaxial Planar Die Construction
- Ideal for Medium Power Amplification and Switching
- Ultra-small surface mount package
- Marking:K3R
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	300	V
V_{CBO}	Collector-Base Voltage	300	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current-Continuous ^{(1) (3)}	100	mA
P_C	Power dissipation ⁽¹⁾	200	mW
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
--------	-----------	-----	-----	-------

OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=1.0mA$, $I_B=0$)	300	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	300	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	5.0	---	Vdc
I_{CBO}	Collector-Base Cutoff Current ($V_{CB}=200Vdc$, $I_E=0$)	---	250	nAdc
I_{EBO}	Emitter-Base Cutoff Current ($V_{CE}=3.0Vdc$, $I_C=0$)	---	100	nAdc

ON CHARACTERISTICS⁽²⁾

h_{FE}	DC Current Gain ($I_C=1.0mA$, $V_{CE}=10Vdc$) ($I_C=10mA$, $V_{CE}=10Vdc$) ($I_C=30mA$, $V_{CE}=10Vdc$)	25 40 25	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=20mA$, $I_B=2.0mA$)	---	0.5	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=20mA$, $I_B=2.0mA$)	---	0.9	Vdc

SMALL SIGNAL CHARACTERISTICS

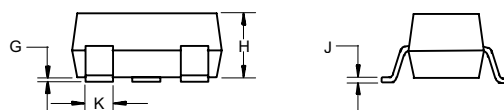
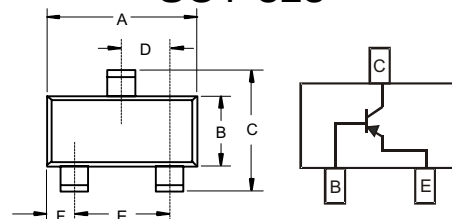
f_T	Current-Gain-Bandwidth Product ($V_{CE}=20V$, $f=100MHz$, $I_C=10mA$)	50	---	MHz
C_{CB}	Collector-Base Capacitance ($V_{CB}=20V$, $f=1.0MHz$, $I_E=0$)	---	6.0	pF

Note: 1. Valid provided that terminals are kept at ambient temperature.

2. Pulse test: Pulse width<300us, duty cycle<2%

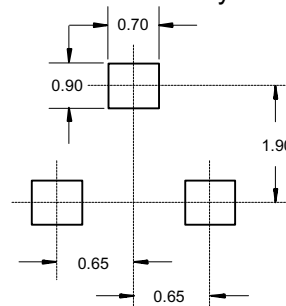
3. When operated within safe operating area constraints.

SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	

Suggested Solder Pad Layout



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes .
Micro Commercial Components Corp. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

APPLICATIONS DISCLAIMER

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.