



Micro Commercial Components



Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# MMST5551

## Features

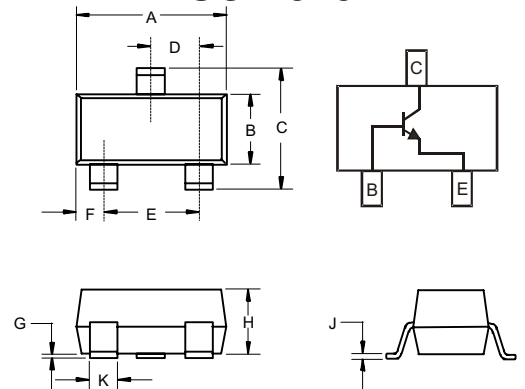
- Halogen free available upon request by adding suffix "-HF"
- Power dissipation: 200mW ( $T_{amb}=25^{\circ}C$ )
- Collector current: 0.2A
- Marking : K4N
- Operating and Storage junction temperature range  
 $-55^{\circ}C$  to  $+150^{\circ}C$
- Lead Free Finish/RoHS Compliant ("P" Suffix designates  
 RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS <sup>(2)</sup></b>				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=1.0mA$ , $I_B=0$ )	160	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu A$ , $I_E=0$ )	180	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ( $I_E=10\mu A$ , $I_C=0$ )	5.0	---	Vdc
$I_{CEO}$	Collector Cutoff Current ( $V_{CB}=35Vdc$ , $I_E=0Vdc$ )	---	50	nAdc
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=5Vdc$ , $I_C=0Vdc$ )	---	50	nAdc
$h_{FE}$	DC Current Gain ( $I_C=1mA$ , $V_{CE}=5Vdc$ ) ( $I_C=10mA$ , $V_{CE}=5Vdc$ ) ( $I_C=50mA$ , $V_{CE}=5Vdc$ )	80 80 30	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=10mA$ , $I_B=1mA$ ) ( $I_C=50mA$ , $I_B=5mA$ )	---	0.15 0.2	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=10mA$ , $I_B=1mA$ ) ( $I_C=50mA$ , $I_B=5mA$ )	---	1 1	Vdc
$f_T$	Current Gain-Bandwidth Product ( $V_{CE}=10Vdc$ , $I_C=20mA$ , $f=100MHz$ )	100	300	MHz
$C_{ob}$	Output Capacitance ( $V_{CB}=10Vdc$ , $f=1.0MHz$ , $I_E=0$ )	---	6	pF
NF	Noise Figure ( $V_{CE}=5V$ , $I_C=0.2mA$ , $f=1KHz$ , $R_g=10\Omega$ )	---	8	dB

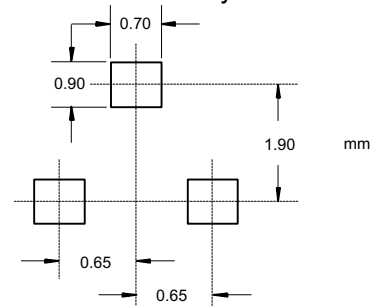
## NPN Small Signal Transistors

### 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	.083	.096	2.10	2.45	
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	.006	.016	.15	.40	

### Suggested Solder Pad Layout





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### Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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