



Micro Commercial Components

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

MMST4401

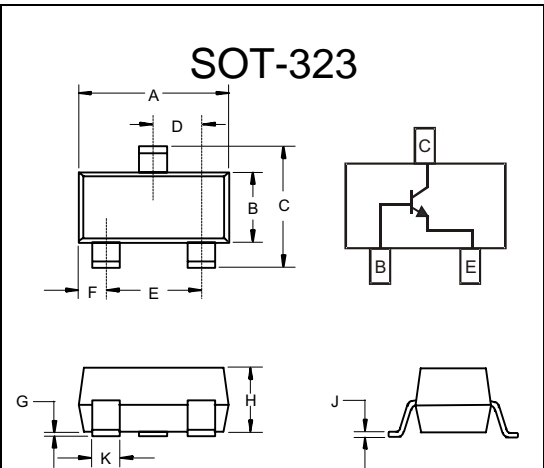
Features

- Power dissipation: 200mW ($T_{amb}=25^{\circ}C$)
- Collector current: 0.6A
- Marking : K3X
- Operating and Storage junction temperature range
 -55°C to + 150°C
- Case Material: Molded Plastic. UL Flammability
 Classification Rating 94V-0 and MSL Rating 1

NPN Small Signal Transistors

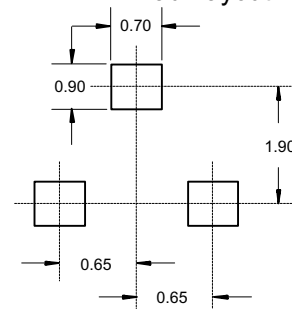
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units	
OFF CHARACTERISTICS ⁽²⁾					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=1.0mA$, $I_B=0$)	40	---	Vdc	
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$)	60	---	Vdc	
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ($I_E=100\mu A$, $I_C=0$)	6.0	---	Vdc	
I_{CBO}	Collector Cutoff Current ($V_{CB}=35Vdc$, $I_E=0Vdc$)	---	0.1	μA	
I_{CEO}	Collector Cutoff Current ($V_{CE}=35Vdc$, $I_B=0Vdc$)	---	0.1	μA	
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5Vdc$, $I_C=0Vdc$)	---	0.1	μA	
h_{FE}	DC Current Gain ($I_C=150mA$, $V_{CE}=1.0Vdc$) ($I_C=500mA$, $V_{CE}=2.0Vdc$)	100 40	300 ---	---	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=150mA$, $I_B=15mA$)	---	0.4	Vdc	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=150mA$, $I_B=15mA$)	---	0.95	Vdc	
f_T	Current Gain-Bandwidth Product ($V_{CE}=10Vdc$, $I_C=20mA$, $f=100MHz$)	250	---	MHz	
C_{ob}	Output Capacitance ($V_{CB}=10Vdc$, $f=1.0MHz$, $I_E=0$)	---	6.5	pF	
t_d	Delay Time	$V_{CC}=30V$, $I_C=150\mu A$,	---	15	ns
t_r	Rise Time	$V_{BE(off)}=2V$, $I_{B1}=15mA$	---	20	ns
t_s	Storage Time	$V_{CC}=30V$, $I_C=150mA$,	---	225	ns
t_f	Fall Time	$I_{B1}=I_{B2}=15mA$	---	30	ns



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





Micro Commercial Components

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.