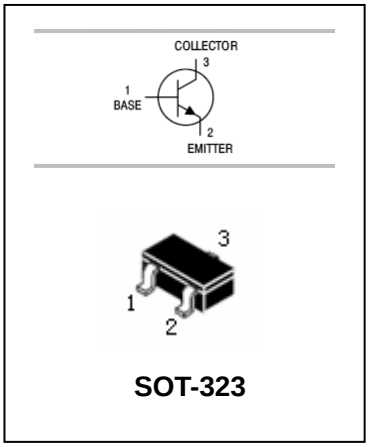
Silicon Epitaxial Planar Transistor **MMST2222A**

FEATURES

- Epitaxial planar die construction.
- Complements the MMST2907A.
- Ultra-small surface mount package.

Lead-free



SOT-323

APPLICATIONS

- NPN Silicon Epitaxial Planar Transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMST2222A	K3P	SOT-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	600	mA
P_C	Collector Dissipation	200	mW
$R_{\theta JA}$	Thermal resistance, junction to ambient	625	℃/W
T_j, T_{stg}	Junction and Storage Temperature	-55~150	℃

Silicon Epitaxial Planar Transistor **MMST2222A**

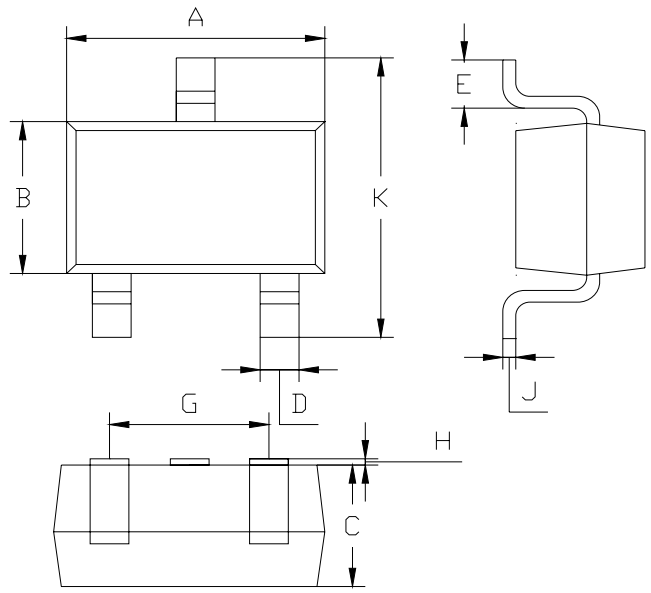
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA,I_E=0	75			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0 V_{CB}=60V,I_E=0 T_A=150℃			10	nA μA
Collector cut-off current	I_{CEX}	V_{CE}=60V,$V_{EB(OFF)}$=3.0V			10	nA
Base cut-off current	I_{BL}	V_{CE}=60V,$V_{EB(OFF)}$=3.0V			20	nA
Emitter cut-off current	I_{EBO}	V_{EB}=3.0V,I_C=0			10	nA
DC current gain	h_{FE}	V_{CE}=10V,I_C=0.1mA V_{CE}=10V,I_C=1mA V_{CE}=10V,I_C=10mA V_{CE}=10V,I_C=150mA V_{CE}=10V,I_C=500mA V_{CE}=1V,I_C=150mA	35 50 75 100 40 35	300		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_{CE}=500mA,I_B=50mA I_{CE}=150mA,I_B=15mA			1.0 0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_{CE}=500mA,I_B=50mA I_{CE}=150mA,I_B=15mA			2.0 1.2	V
Transition frequency	f_T	V_{CE}=20V, I_C= 20mA,f=100MHz		300		MHz
Output capacitance	C_{obo}	V_{CB}=10V,I_E=0,f=1MHz			8	pF
Input capacitance	C_{ibo}	V_{EB}=0.5V,I_C=0,f=1MHz			25	pF
Noise figure	NF	V_{CE}=10V,I_C=100μA R_S=1.0KΩ,f=1.0kHz			4.0	dB
Delay Time	t_d	V_{CC}=30V,I_C=150mA $V_{BE(OFF)}$=-0.5V,I_{B1}=15mA			10	ns
Rise Time	t_r				25	ns
Storang Time	t_s	V_{CC}=30V,I_C=150mA I_{B1}= I_{B2}=15mA			225	ns
Fall Time	t_f				60	ns

PACKAGE OUTLINE

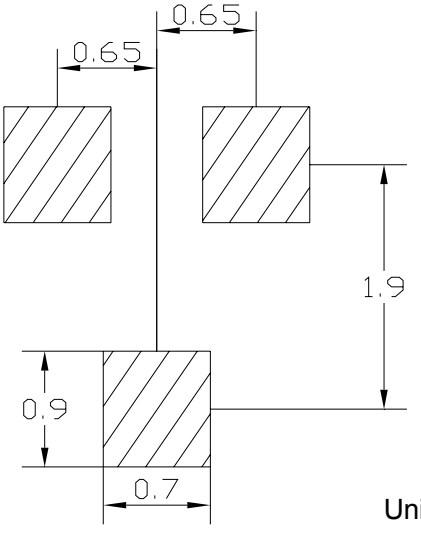
Silicon Epitaxial Planar Transistor **MMST2222A**

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.15	0.35
E	0.25	0.40
G	1.2	1.4
H	0.02	0.1
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMST2222A	SOT-323	3000/Tape&Reel