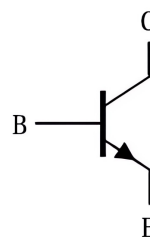


Features

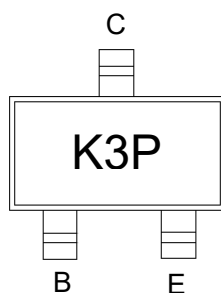
- Epitaxial planar die construction
- Complementary PNP Type available(MMST2907A)



SOT-323 top view



Schematic diagram



Marking and pin assignment



Halogen-Free

Maximum Ratings (Ta=25°C unless otherwise noted)

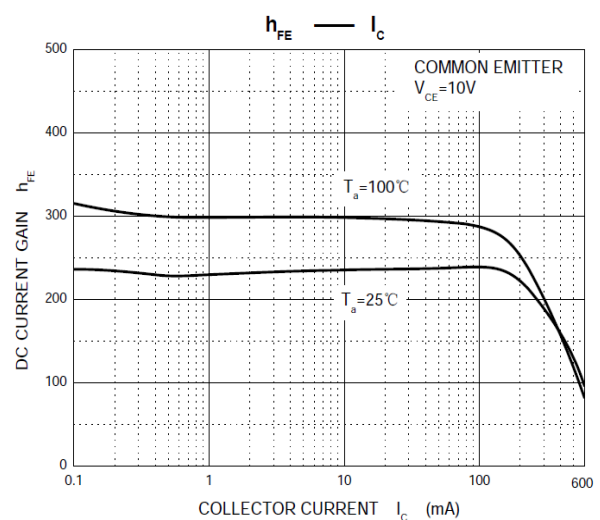
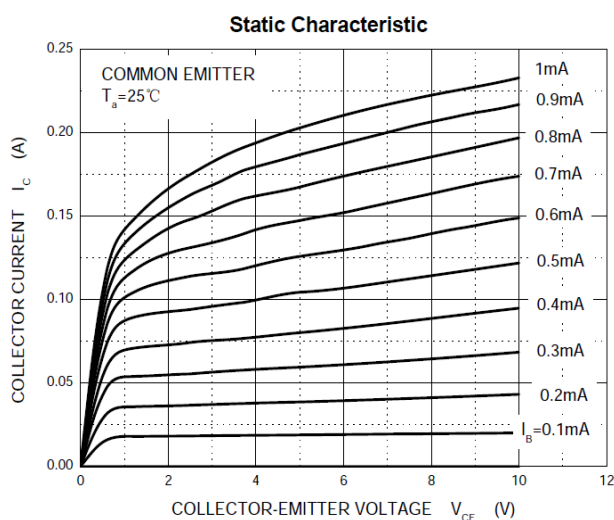
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	75	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	200	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

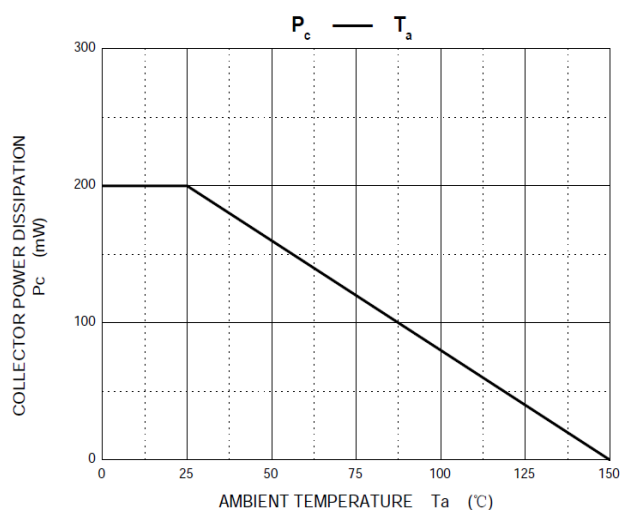
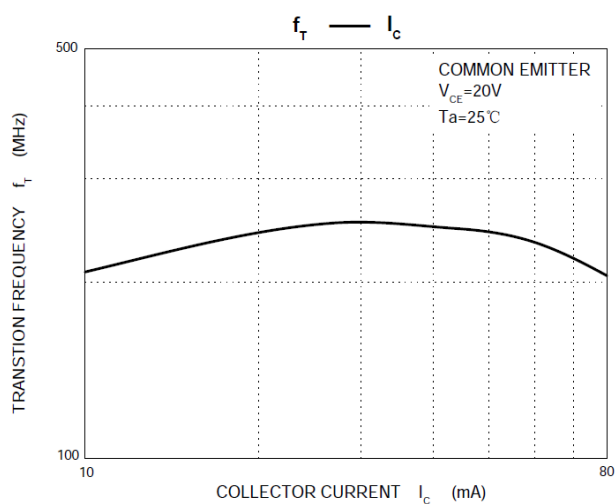
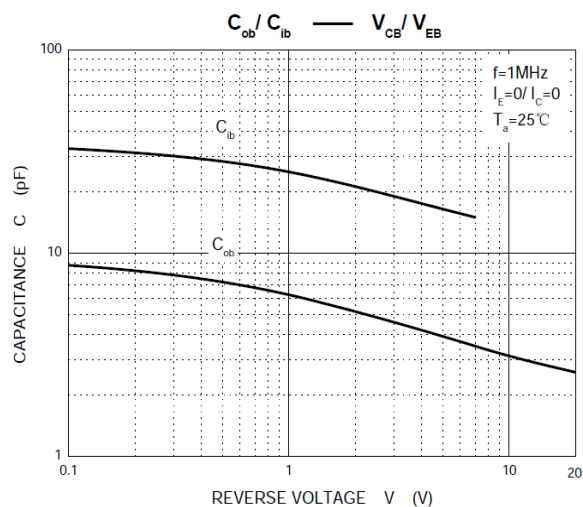
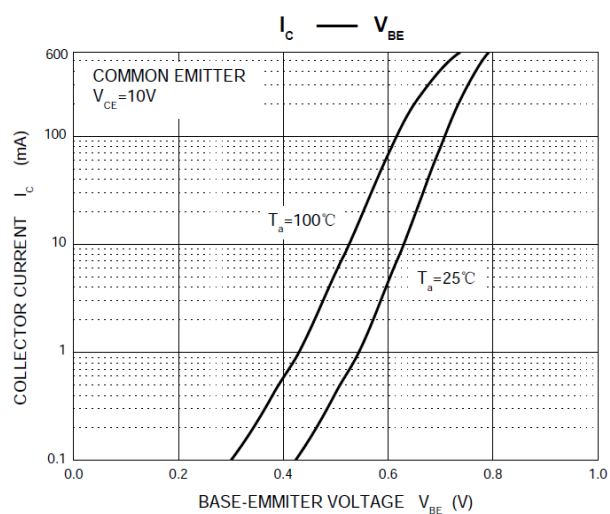
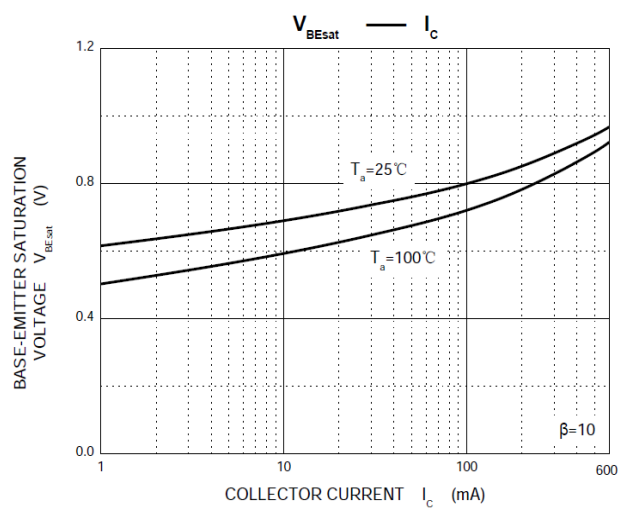
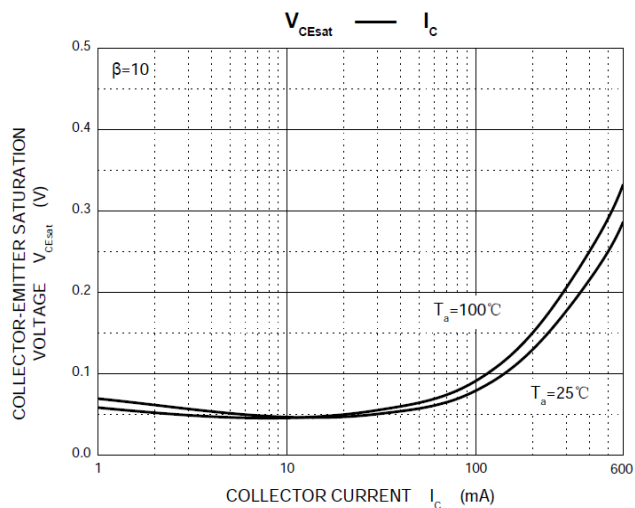
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MMST2222A	SOT-323	K3P	3,000	45,000	180,000	7" reel

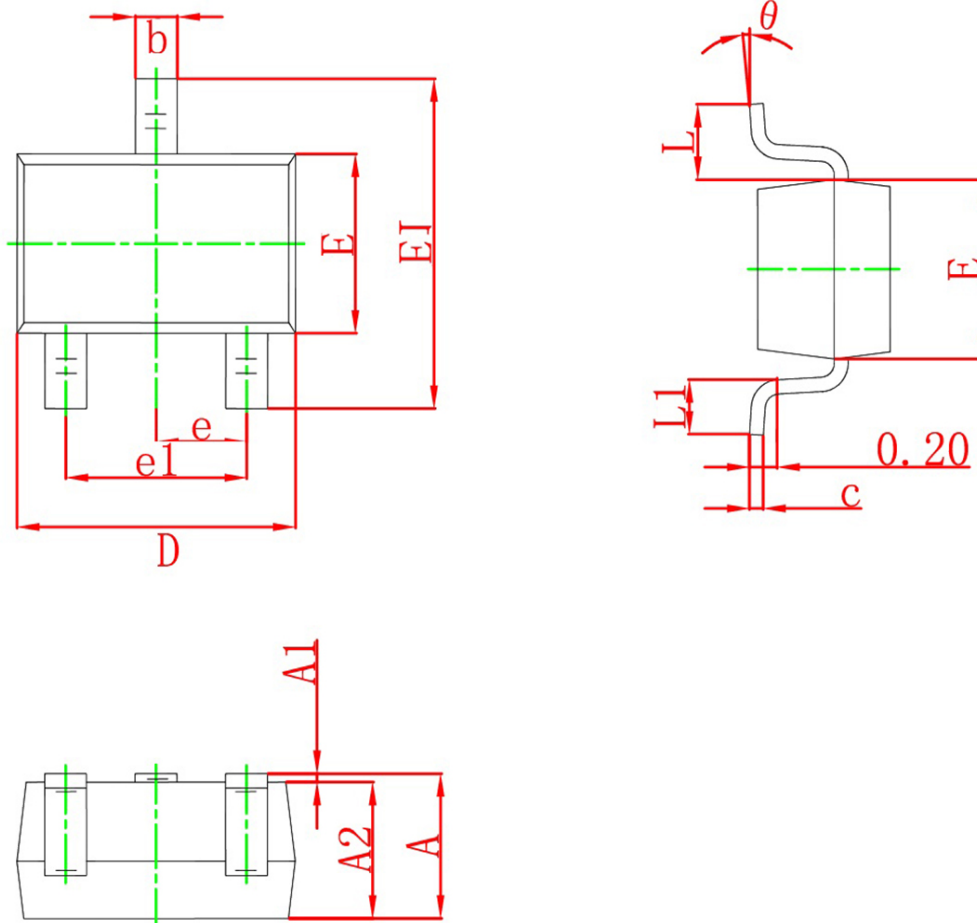
Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=10\mu A, I_E=0$	75	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA, I_B=0$	40	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\mu A, I_C=0$	6	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB}=70V, I_E=0$	--	--	100	nA
I_{EBO}	Emitter cut-off current	$V_{EB}=3V, I_C=0$	--	--	100	nA
I_{CEO}	Collector cut-off current	$V_{CE}=35V, I_B=0$	--	--	100	nA
h_{FE1}	DC current gain	$V_{CE}=10V, I_C=0.1mA$	35	--	--	
h_{FE2}		$V_{CE}=10V, I_C=1mA$	50	--	--	
h_{FE3}		$V_{CE}=10V, I_C=10mA$	75	--	--	
h_{FE4}		$V_{CE}=10V, I_C=150mA$	100	--	--	
h_{FE5}		$V_{CE}=10V, I_C=500mA$	40	--	--	
h_{FE6}		$V_{CE}=1V, I_C=150mA$	35	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=500mA, I_B=50mA$	--	--	1	V
		$I_C=150mA, I_B=15mA$	--	--	0.3	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=500mA, I_B=50mA$	--	--	2.0	V
		$I_C=150mA, I_B=15mA$	--	--	1.2	V
f_T	Transition frequency	$V_{CE}=20V, I_C=20mA, f=100MHz$	300	--	--	MHz
C_{ob}	Collector output capacitance	$V_{CB}=10V, I_E=0, f=1MHz$	--	--	8	pF
t_d	Delay time	$V_{CC}=30V, V_{BE(off)}=-0.5V$	--	--	10	ns
t_r	Rise time	$I_C=150mA, I_{B1}=15mA$	--	--	25	ns
t_s	Storage time	$V_{CC}=30V, I_C=150mA$	--	--	225	ns
t_f	Fall time	$I_{B1}=-I_{B2}=15mA$	--	--	60	ns

Typical Characteristics




SOT-323 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°