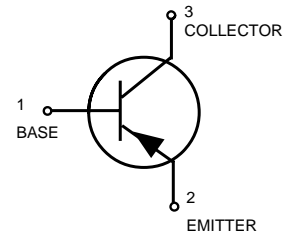


»Features

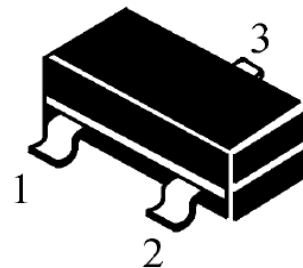
$V_{CE} = -40V$   
 $I_C = -0.2A$   
 $f_T = 250MHz @V_{CE}=-20V, I_C=-10mA, f=100MHz$

»Pin Configurations



»General Description

- As complementary type the NPN transistor MMST3904 is recommended
- Epitaxial planar die constructio
- SOT-323 Plastic Package.



»Absolute Maximum Ratings @ $T_A=25^{\circ}C$  unless otherwise noted

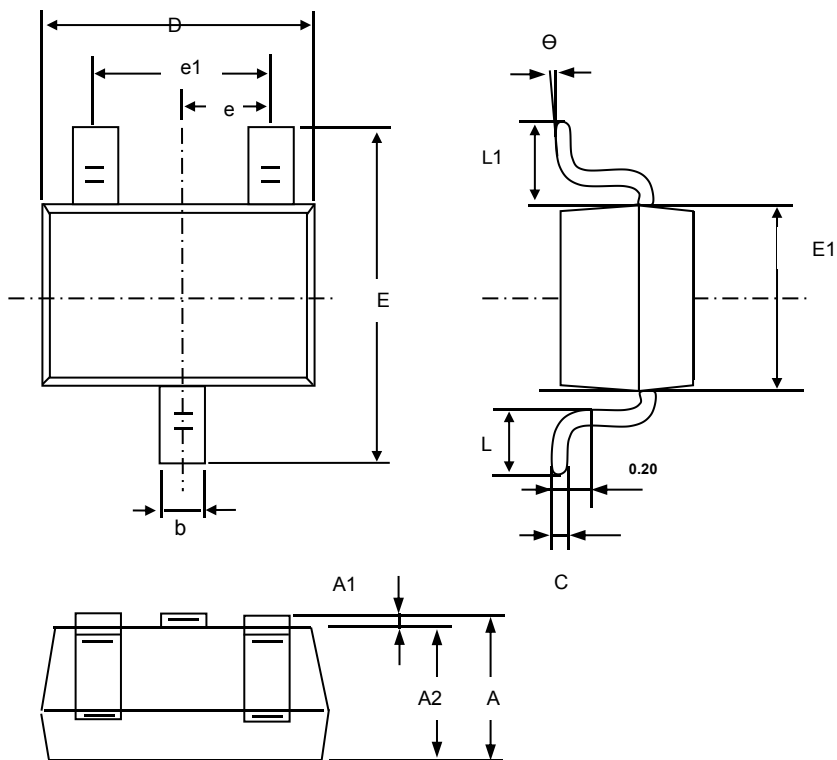
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-50	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-200	mA
$P_{tot}$	Total Device Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	625	$^{\circ}C/W$
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature	-55 to +150	$^{\circ}C$

**»Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise noted**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-50		V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C=-1\text{mA}, I_B=0$	-40		V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-40\text{V}, I_E=0$		-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$		-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}, I_C=-10\text{mA}$	100	300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50\text{mA}, I_B=-5\text{mA}$		-0.3	V
Transition frequency	$f_T$	$V_{CE}=-20\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	250		MHz
Delay Time	$t_d$	$V_{CC}=-3\text{V}, V_{BE}=-0.5\text{V}$		35	nS
Rise Time	$t_r$	$I_C=-10\text{mA}, I_{B1}=-I_{B2}=-1\text{mA}$		35	nS
Storage Time	$t_s$	$V_{CC}=-3\text{V}, I_C=-10\text{mA},$		225	nS
Fall Time	$t_f$	$I_{B1}=-I_{B2}=-1\text{mA}$		75	nS

»Package Information

SOT-323



Symbol	Dim in mm		
	Min	Nor	Max
A	0.90	1.00	1.10
A1	0.00	0.05	0.10
A2	0.90	0.95	1.00
b	0.20	0.30	0.40
c	0.08	0.12	0.15
D	2.00	2.10	2.20
E	2.15	2.30	2.45
E1	1.15	1.25	1.35
e	0.650TPY.		
e1	1.2	1.3	1.4
L	0.26	0.36	0.46
L1	0.525REF.		
θ	0°	4°	8°

»Ordering information

Order code	Package	Marking	Base qty	Delivery mode
MMST3906	SOT-323	K5N	3K	Tape and reel