

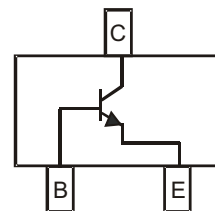
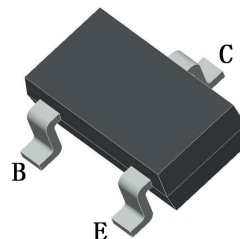
Features

- Driver transistor

Marking:

- 1H

SOT-23



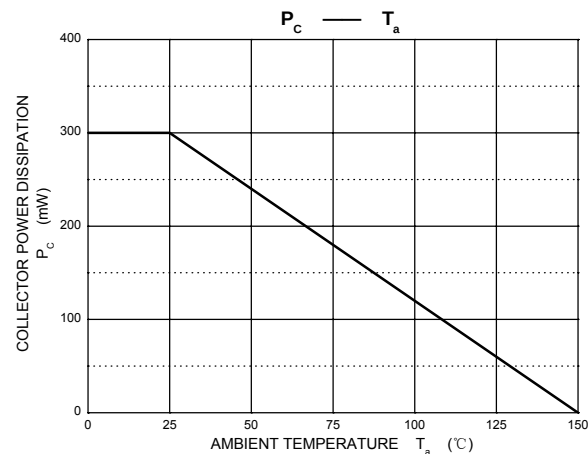
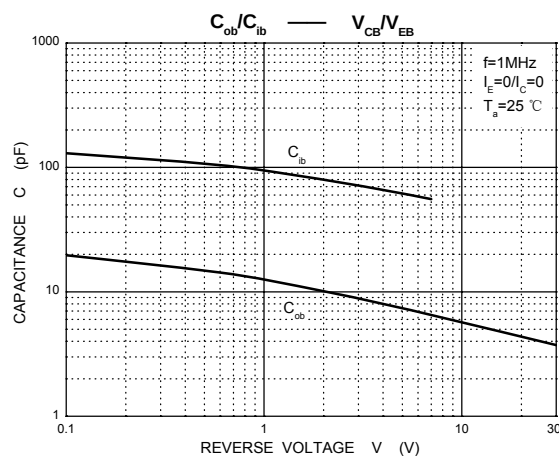
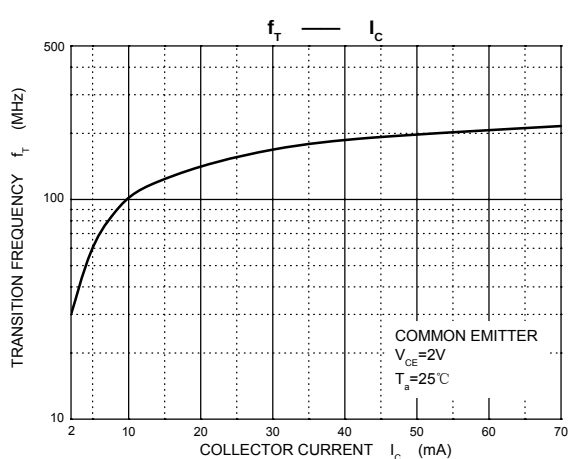
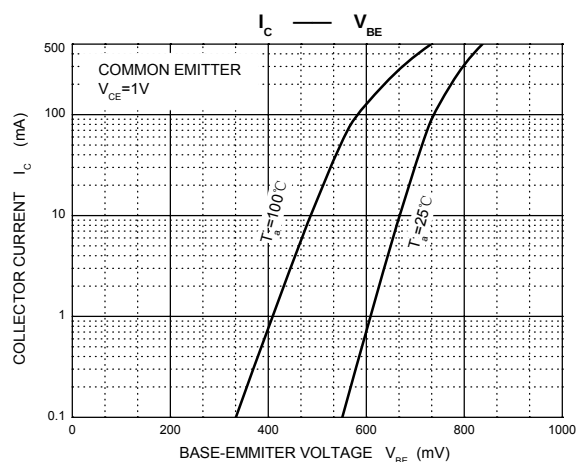
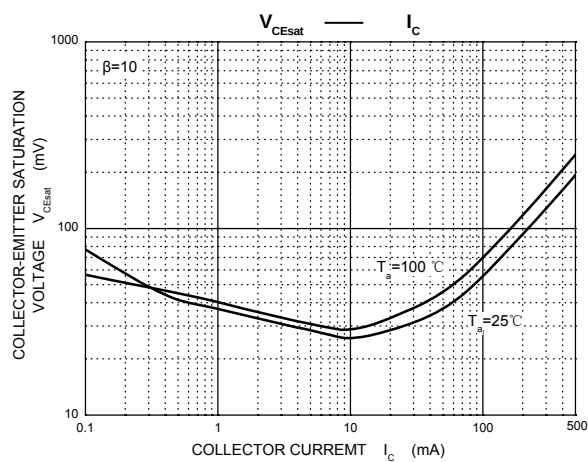
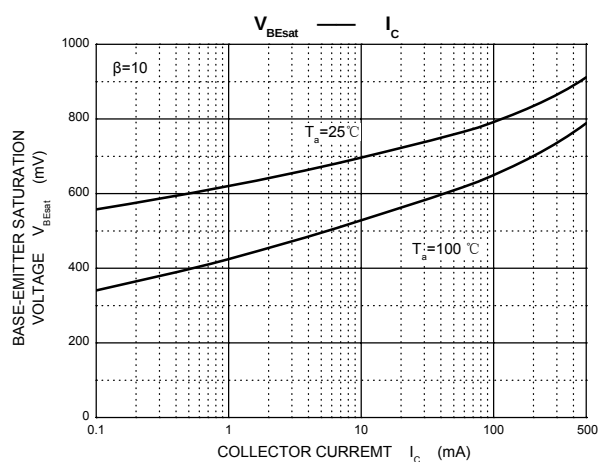
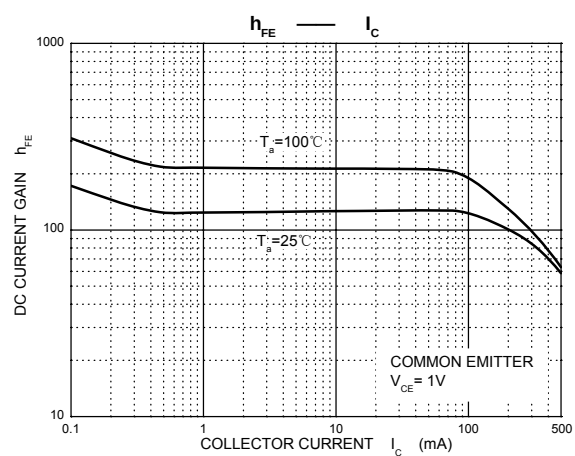
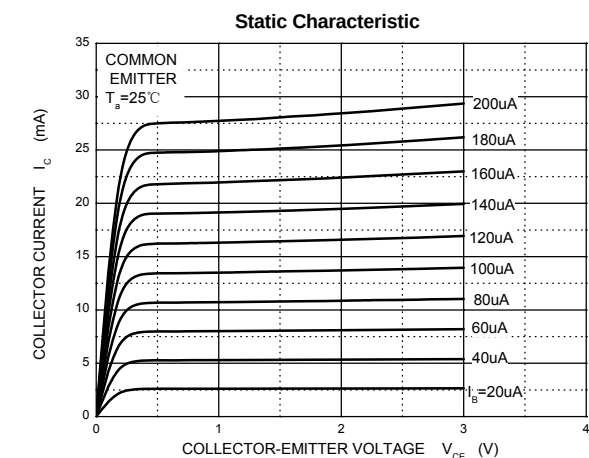
Limiting Values (Absolute Maximum Rating)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	0.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

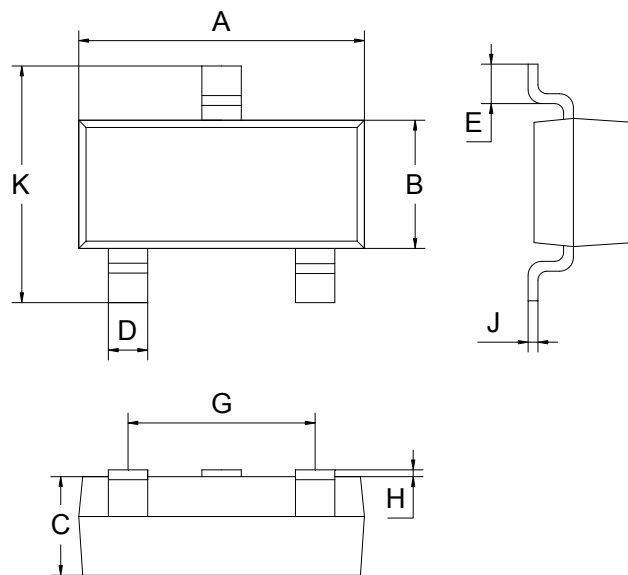
Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	4			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 60V, I_B = 0$			0.1	μA
Collector cut-off current	I_{EBO}	$V_{EB} = 3V, I_C = 0$			0.1	μA
DC current gain	h_{FE1}	$V_{CE} = 1V, I_C = 10mA$	100		400	
	h_{FE2}	$V_{CE} = 1V, I_C = 100mA$	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10mA$			0.25	V
Base-emitter voltage	V_{BE}	$V_{CE} = 1V, I_C = 100mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 2V, I_C = 10mA$ $f = 100MHz$	100			MHz

Typical Characteristics

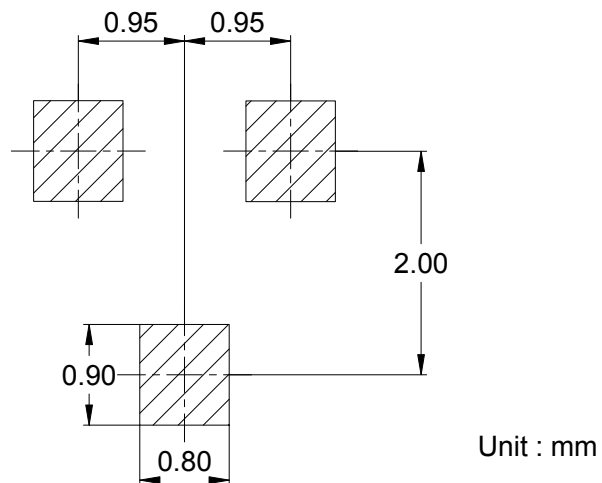


SOT-23 Package Outline Dimensions



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60
All Dimensions in mm		

SOT-23 Suggested Pad Layout



Package Information

TYPE	REEL	Reel Size	Box	Carton
MMBTA05	3000 pcs	7 Inch	45,000 pcs	180,000 pcs