



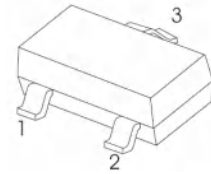
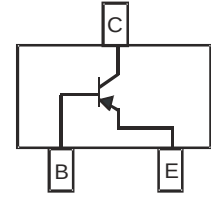
MMBTA55 / MMBTA56 PNP SMALL SIGNAL SURFACE MOUNT TRANSISTOR

Features

- Epitaxial Planar Die Construction
- Complementary NPN Types Available (MMBTA05 / MMBTA06)
- Ideal for Low Power Amplification and Switching

MMBTA55 Marking: K2H

MMBTA56 Marking: K2G



SOT-23

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	MMBTA55	MMBTA56	Unit
Collector-Base Voltage	V _{CBO}	-60	-80	V
Collector-Emitter Voltage	V _{CEO}	-60	-80	V
Emitter-Base Voltage	V _{EBO}	-4.0		V
Collector Current - Continuous	I _C	-500		mA
Power Dissipation	P _d	300		mW
Thermal Resistance, Junction to Ambient	R _{θJA}	417		°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150		°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	MMBTA55 MMBTA56	V _{(BR)CBO}	-60 -80	—	V	I _C = -100μA, I _E = 0
Collector-Emitter Breakdown Voltage	MMBTA55 MMBTA56	V _{(BR)CEO}	-60 -80	—	V	I _C = -1.0mA, I _B = 0
Emitter-Base Breakdown Voltage		V _{(BR)EBO}	-4.0	—	V	I _E = -100μA, I _C = 0
Collector Cutoff Current	MMBTA55 MMBTA56	I _{CBO}	—	-100	nA	V _{CB} = -60V, I _E = 0 V _{CB} = -80V, I _E = 0
Collector Cutoff Current	MMBTA55 MMBTA56	I _{CEX}	—	-100	nA	V _{CE} = -60V, I _{BO} = 0V V _{CE} = -80V, I _{BO} = 0V
ON CHARACTERISTICS						
DC Current Gain		h _{FE}	100	—	—	I _C = -10mA, V _{CE} = -1.0V I _C = -100mA, V _{CE} = -1.0V
Collector-Emitter Saturation Voltage		V _{CE(SAT)}	—	-0.25	V	I _C = -100mA, I _B = -10mA
Base-Emitter Saturation Voltage		V _{BE(SAT)}	—	-1.2	V	I _C = -100mA, V _{CE} = -1.0V
SMALL SIGNAL CHARACTERISTICS						
Current Gain-Bandwidth Product		f _T	50	—	MHz	V _{CE} = -1.0V, I _C = -100mA, f = 100MHz

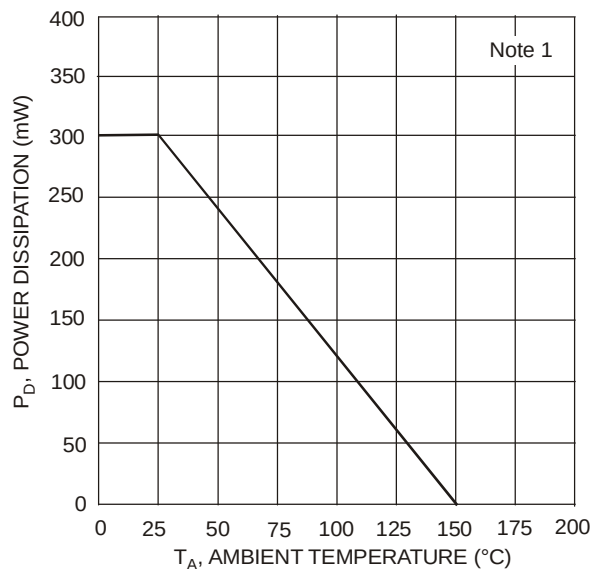


Fig. 1 Max Power Dissipation vs Ambient Temperature

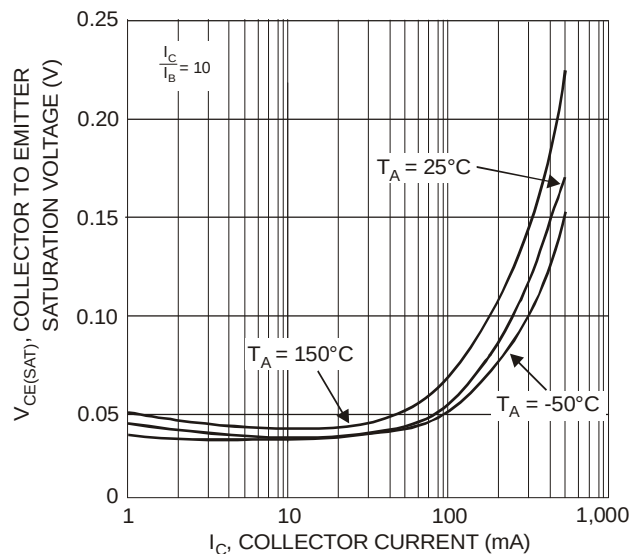


Fig. 2 Collector Emitter Saturation Voltage vs. Collector Current

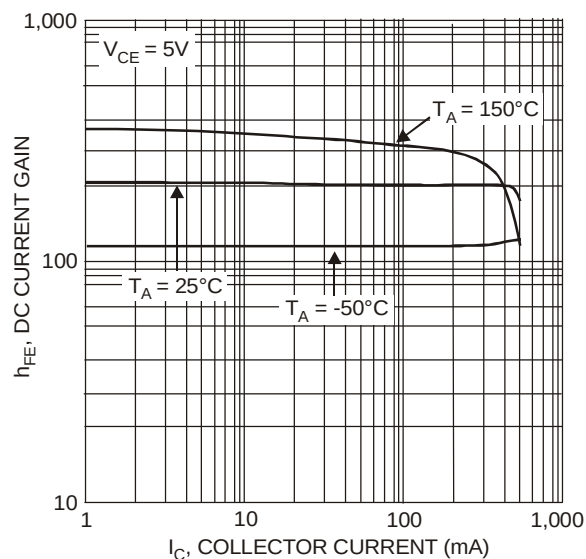


Fig. 3 DC Current Gain vs. Collector Current

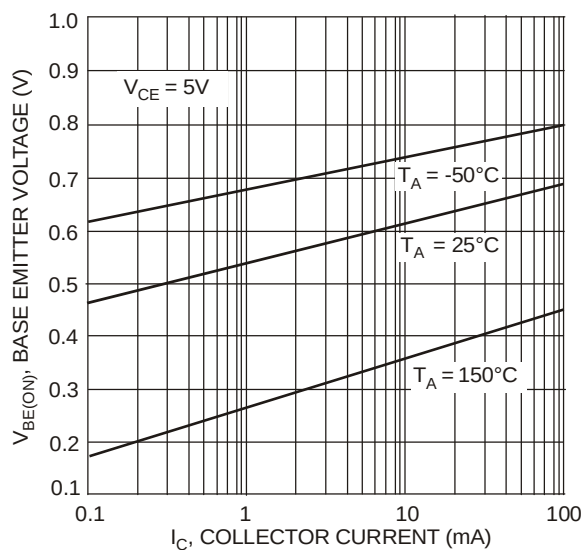


Fig. 4 Base Emitter Voltage vs. Collector Current

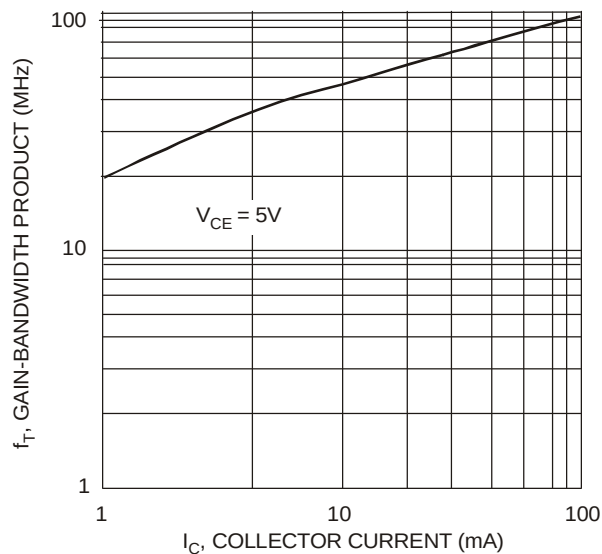


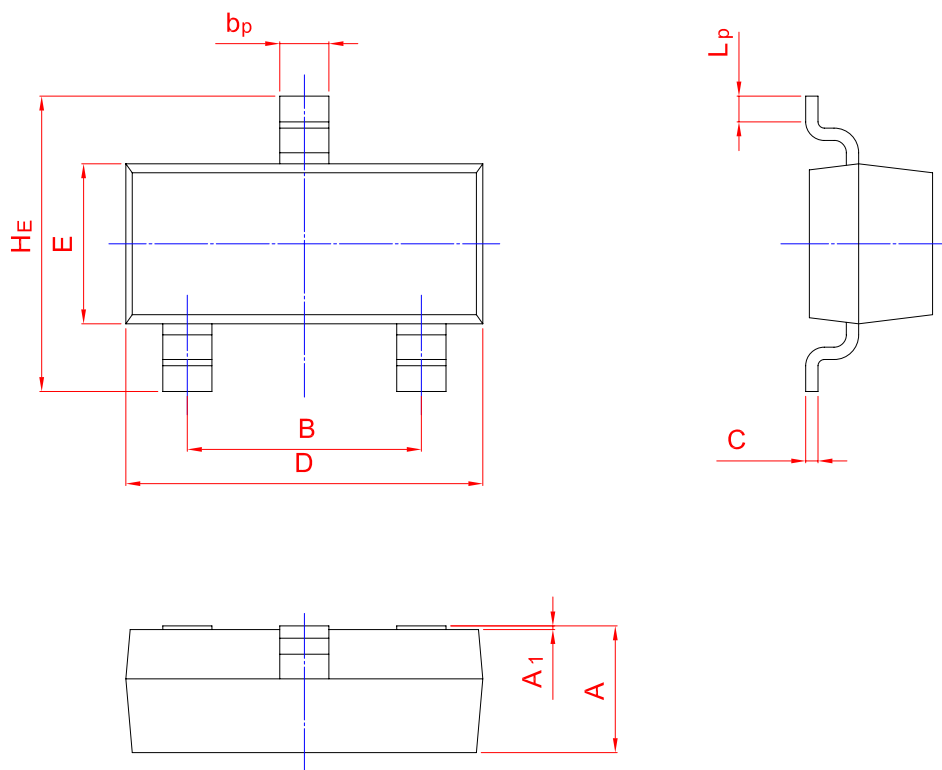
Fig. 5 Gain-Bandwidth Product vs. Collector Current



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20