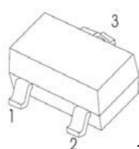


Features

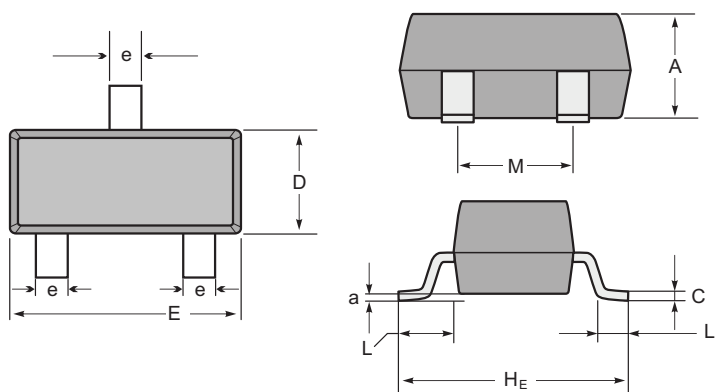
- Epitaxial Planar Die Construction
- Complementary NPN Types Available (MMBTA05 / MMBTA06)
- Ideal for Low Power Amplification and Switching

MMBTA55 Marking: 2H

MMBTA56 Marking: 2GM



1.BASE
2.EMITTER
3.COLLECTOR



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55	0.36	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7	(ref)	(ref)	0.15
mil	max	43	6	55	118	102	20	77	22	14	0.0
	min	35	3	47	110	87	12	67	(ref)	(ref)	6

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

MMBTA55 / MMBTA56

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

RATING AND CHARACTERISTIC CURVES (MMBTA55/MMBTA56)

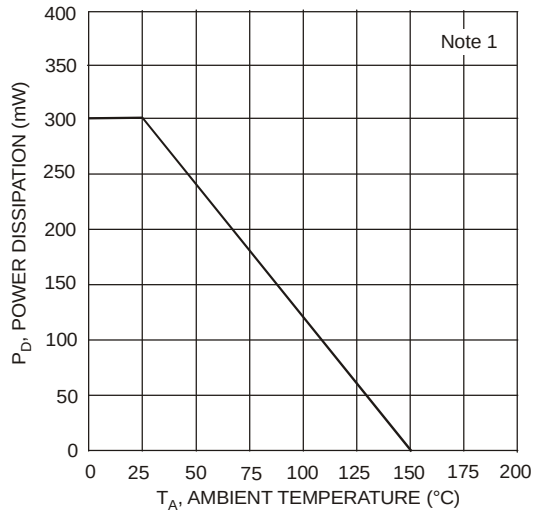


Fig. 1 Max Power Dissipation vs Ambient Temperature

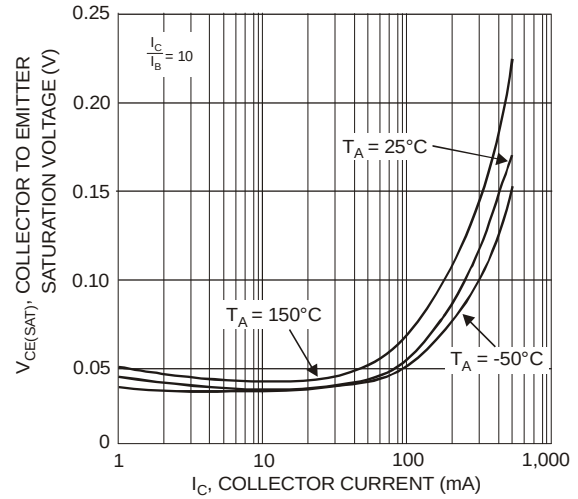


Fig. 2 Collector Emitter Saturation Voltage vs. Collector Current

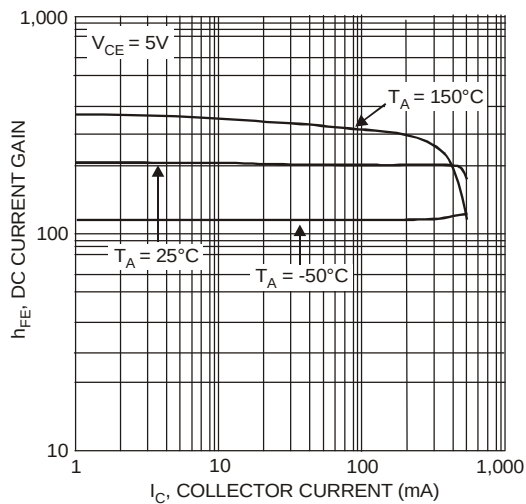


Fig. 3 DC Current Gain vs. Collector Current

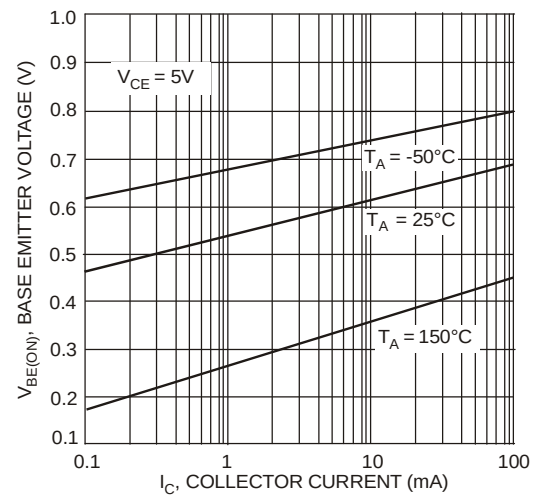


Fig. 4 Base Emitter Voltage vs. Collector Current

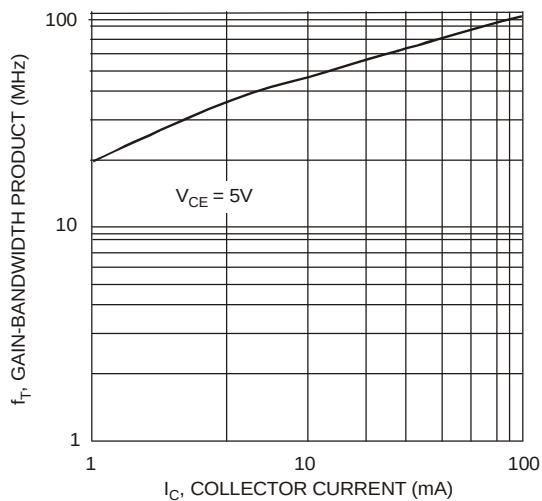


Fig. 5 Gain-Bandwidth Product vs. Collector Current