

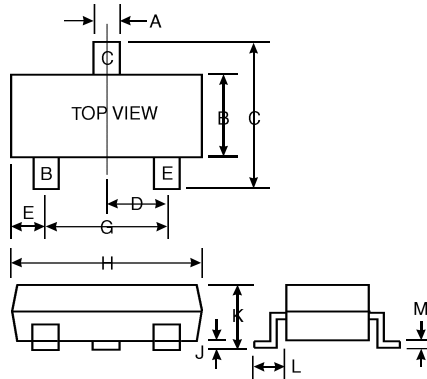


Features

Epitaxial Planar Die Construction
Complementary PNP Types Available
(MMBTA55 / MMBTA56)
Ideal for Medium Power Amplification and
Switching

Mechanical Data

Case: SOT-23, Molded Plastic
Terminals: Solderable per MIL-STD-202,
Method 208
Terminal Connections: See Diagram
MMBTA05 Marking: K1H, R1H
MMBTA06 Marking: K1G, R1G
Weight: 0.008 grams (approx.)



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

Maximum Ratings @ T_A = 25 C unless otherwise specified

Characteristic	Symbol	MMBTA05	MMBTA06	Unit
Collector-Base Voltage	V _{CB0}	60	80	V
Collector-Emitter Voltage	V _{CEO}	60	80	V
Emitter-Base Voltage	V _{EBO}	4.0		V
Collector Current - Continuous (Note 1)	I _C	500		mA
Power Dissipation (Note 1)	P _d	350		mW
Thermal Resistance, Junction to Ambient (Note 1)	R _{JA}	357		K/W
Operating and Storage and 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 (Note 2)					
Collector-Base Breakdown Voltage	MMBTA05 MMBTA06 V _{(BR)CBO}	60 80		V	I _C = 100 A, I _E = 0
Collector-Emitter Breakdown Voltage	MMBTA05 MMBTA06 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 = 100 A, I _C = 0
Collector Cutoff Current	MMBTA05 MMBTA06 I _{CB0}		100	nA	V _{CB} = 60V, I _E = 0 V _{CB} = 80V, I _E = 0
Collector Cutoff Current	MMBTA05 MMBTA06 I _{CES}		100	nA	V _{CE} = 60V, I _{BO} = 0V V _{CE} = 80V, I _{BO} = 0V
ON CHARACTERISTICS (Note 2)					
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	100		MHZ	V _{CE} = 2.0V, I _C = 10mA, f = 100MHZ

Note: 1. Valid provided that terminals are kept at ambient temperature.
2. Pulse test: Pulse width 300 s, duty cycle 2%.