MMBTA55 / MMBTA56

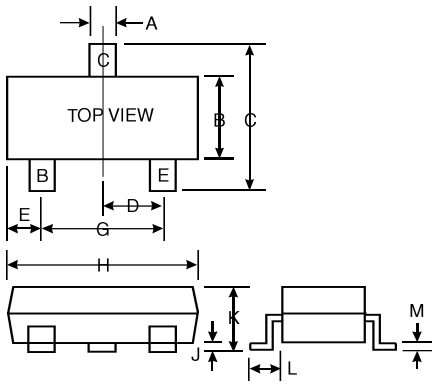
PNP SMALL SIGNAL SURFACE MOUNT TRANSISTOR

Features

- Epitaxial Planar Die Construction
- Complementary NPN Types Available (MMBTA05 / MMBTA06)
- 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
- MMBTA55 Marking: K2H, R2H
- MMBTA56 Marking: K2G, R2G
- 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	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 (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	MMBTA55 MMBTA56	$V_{(BR)CBO}$	-60 -80		V	I_C = -100 A, 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 = -100 A, 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 (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	50		MHz	V_{CE} = -1.0V, I_C = -100mA, f = 100MHz

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