

# Preliminary MMBTA55-A56

## PNP General Purpose Transistor

### Features

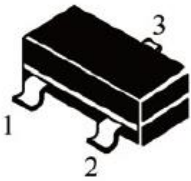
- Epitaxial planar die construction.
- Complementary NPN type available (MMBTA05/MMBTA06).
- Low collector-emitter saturation voltage.
- RoHS compliant package

### Application

- Ideal for medium NPN amplification and switching.

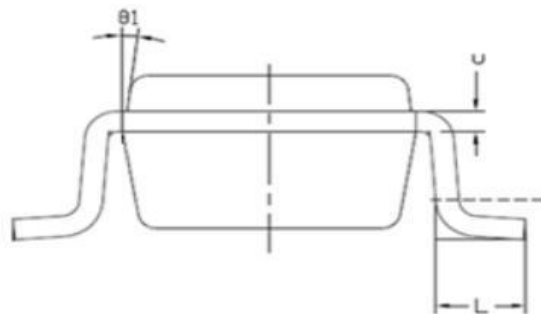
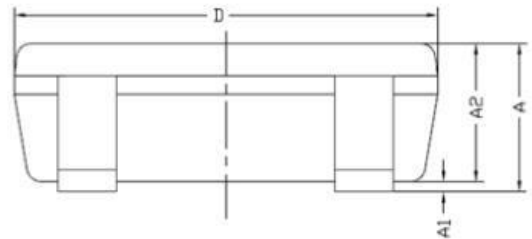
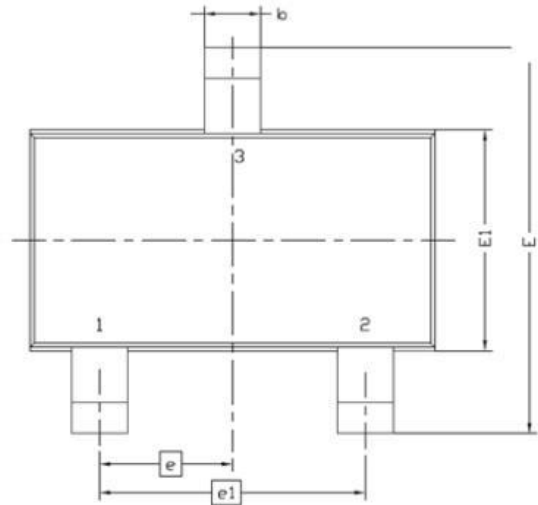
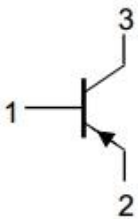
### Packing & Order Information

3,000/Reel



**RoHS  
COMPLIANT**

### Graphic symbol



Symbol	MILLIMETERS	
	MIN	MAX
A	0.8	1.2
A1	0	0.1
A2	0.7	1.1
b	0.3	0.5
c	0.1	0.2
D	2.7	3.1
E	2.6	3
E1	1.4	1.8
e	0.95 BSC	
e1	1.9 BSC	
L	0.3	0.6
θ1	7° NOM	

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	MMBTA55	MMBTA56	Unit
V <sub>CBO</sub>	Collector-Base Voltage	-60	-80	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-80	-80	V
V <sub>EBO</sub>	Emitter-Base Voltage	-4		V
I <sub>C</sub>	collector current (DC)	-0.5		A
P <sub>C</sub>	Collector Dissipation	-0.3		W
R <sub>θJA</sub>	Thermal resistance junction to ambient	417		°C/W
T <sub>j</sub> ,T <sub>stg</sub>	Junction and Storage Temperature	-55 to +150		°C

### Ordering Information

Type No.	Marking	Package Code
MMBTA55	2H	SOT-23
MMBTA56	2GM	SOT-23

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	MIN	MAX	UNIT
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage (MMBTA55)	I <sub>C</sub> = -100μA , I <sub>E</sub> = 0	-60		V
	Collector-base breakdown voltage (MMBTA56)				
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage(MMBTA55)	I <sub>C</sub> = -1.0mA , I <sub>B</sub> = 0	-60		V
	Collector-emitter breakdown voltage(MMBTA56)				
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> = 100μA , I <sub>C</sub> = 0	-4		V
I <sub>CBO</sub>	Collector cut-off current (MMBTA55)	V <sub>CB</sub> = -60 V , I <sub>E</sub> = 0		-0.1	μA
	Collector cut-off current (MMBTA56)	V <sub>CB</sub> = -80 V , I <sub>E</sub> = 0			
I <sub>CEO</sub>	Collector cut-off current (MMBTA55)	V <sub>CB</sub> = -60 V , I <sub>B</sub> = 0		-0.1	μA
	Collector cut-off current (MMBTA56)	V <sub>CB</sub> = -80 V , I <sub>B</sub> = 0			
h <sub>FE</sub>	DC current gain	V <sub>CE</sub> = -1 V , I <sub>C</sub> = -10mA V <sub>CE</sub> = -1 V , I <sub>C</sub> = -100mA	100 100		-
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> = -100mA , I <sub>B</sub> = -10mA		-0.25	V
V <sub>BE(ON)</sub>	Base-emitter voltage	I <sub>C</sub> = -100mA , I <sub>CE</sub> = -1.0 V		-1.2	V
f <sub>T</sub>	Transition frequency	V <sub>CE</sub> = -1 V , I <sub>C</sub> = -100mA f = 100MHz	50		MHz

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