



DESCRIPTION

The MMBTA42L is available in SOT-23 package.

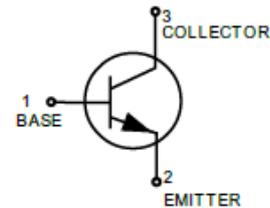
FEATURE

- Low Current
- High Voltage
- Complimentary to MMBTA92L

APPLICATION

- Telephony
- Professional communication equipment

PIN DESCRIPTION



ORDERING INFORMATION

Package Type	Part Number
SOT-23	MMBTA42L
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN#	DESCRIPTION
1	BASE
2	EMITTER
3	COLLECTOR

**ABSOLUTE MAXIMUM RATINGS**T_A = 25°C, unless otherwise noted.

V _{CEO} , Collector–Emitter Voltage	150V
V _{CBO} , Collector–Base Voltage	160V
V _{EBO} , Emitter–Base Voltage	5V
I _C , Collector Current — Continuous	0.6A
P _C , Collector Power Dissipation	0.3W
T _J , Junction Temperature	150°C
T _{STG} , Storage Temperature Range	-55°C~+150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

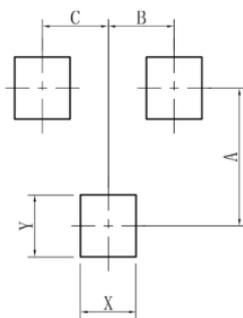
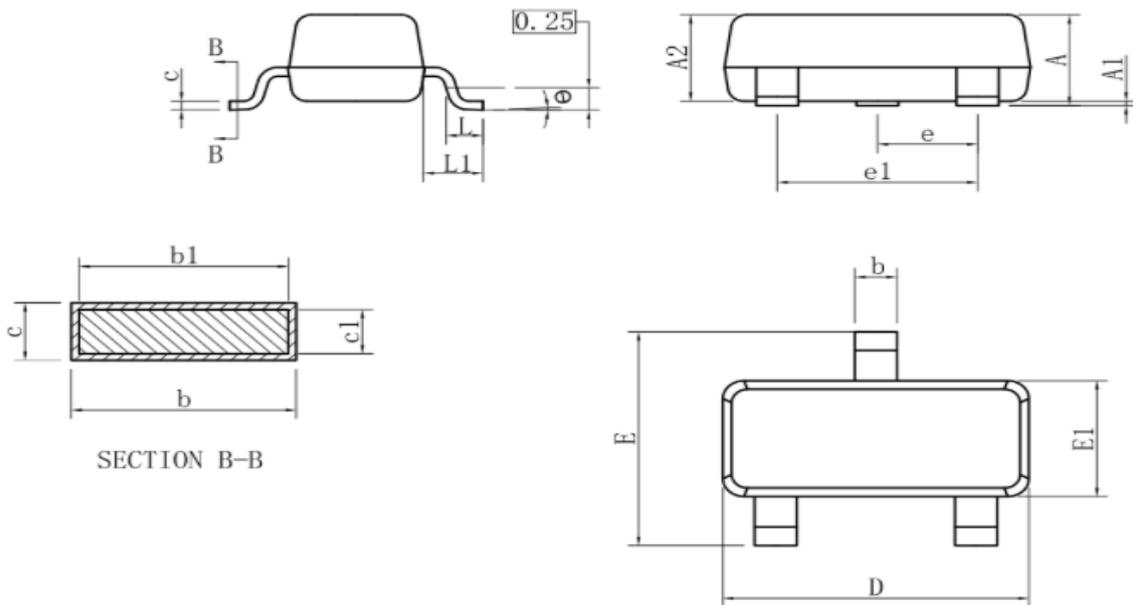
ELECTRICAL CHARACTERISTICST_A = 25°C, unless otherwise noted.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS						
Collector–Emitter Breakdown Voltage	V _{BR(CEO)}	I _C = 1mA, I _B = 0	150	-	-	V
Collector–Base Breakdown Voltage	V _{BR(CBO)}	I _C = 100μA, I _E = 0	160	-	-	V
Emitter–Base Breakdown Voltage	V _{BR(EBO)}	I _E = 100μA, I _C = 0	5	-	-	V
Collector Cutoff Current	I _{CBO}	V _{CB} = 120V, I _E = 0	-	-	1	μA
Collector cut-off current	I _{CEO}	V _{CE} = 120V, I _B = 0	-	-	5	μA
Emitter-Base cut-off current	I _{EBO}	V _{EB} = 5V, I _C = 0	-	-	1	μA
ON CHARACTERISTICS Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%						
DC Current Gain	h _{FE}	I _C = 10mA, V _{CE} = 5V	140	-	200	
Collector–Emitter Saturation Voltage	V _{CE(sat)}	I _C = 50mA, I _B = 5mA	-	-	0.5	V
Base–Emitter Saturation Voltage	V _{BE(sat)}	I _C = 50mA, I _B = 5mA	-	-	1	V



PACKAGE INFORMATION

Dimension in SOT-23 Package (Unit: mm)



The recommended mounting pad size

SOT-23	
DIM	(mm)
X	0.80
Y	0.90
A	2.00
B	0.95
C	0.95

SYMBOL	MIN	MAX
A	0.89	1.12
A1	0.01	0.10
A2	0.88	1.02
b	0.30	0.50
b1	0.30	0.45
c	0.08	0.20
c1	0.08	0.16
D	2.80	3.04
E	2.10	2.64
E1	1.20	1.40
e	0.95BSC	
e1	1.90BSC	
L	0.40	0.60
L1	0.54REF	
θ	0°	8°



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