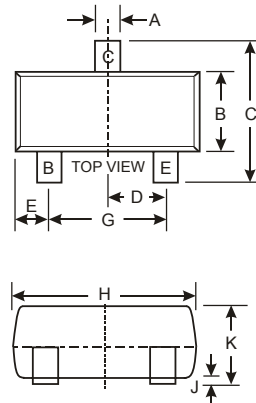
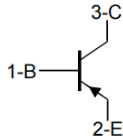
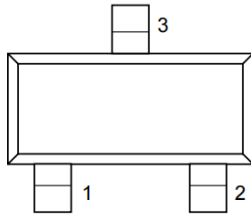
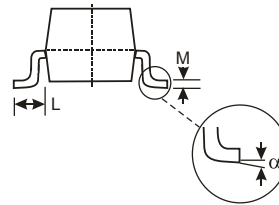


Features

- Epitaxial Planar Die Construction.
- Complementary NPN Type Available(MMBTA44).
- Ideal for Medium Power Amplification and Switching.
- Marking Code:4D



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		



Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	-400	V
Collector Emitter Voltage	V_{CEO}	-400	V
Emitter Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-200	mA
Power Dissipation	P_d	350	mW
Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -400\text{V}, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -400\text{V}, I_B = 0$			-5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	80		300	
	$h_{FE(2)}$	$V_{CE} = -10\text{V}, I_C = -1\text{mA}$	70			
	$h_{FE(3)}$	$V_{CE} = -10\text{V}, I_C = -100\text{mA}$	40			
	$h_{FE(4)}$	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.2	V
	$V_{CE(sat)2}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.75	V
Transition frequency	f_T	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 30\text{MHz}$	50			MHz

TYPICAL TRANSIENT CHARACTERISTICS

