

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- High Voltage Transistor

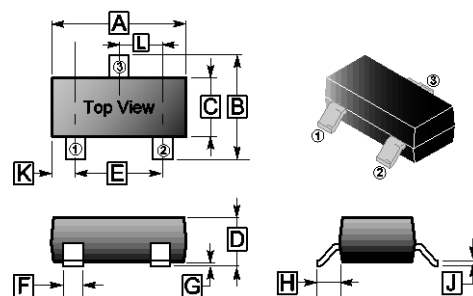
MARKING

4D

PACKAGE INFORMATION

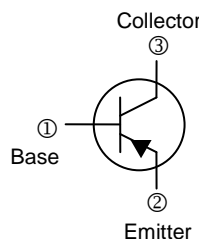
Package	MPQ	Leader Size
SOT-23	3K	7 inch

SOT-23



ORDER INFORMATION

Part Number	Type
MMBTA94	Lead (Pb)-free
MMBTA94-C	Lead (Pb)-free and Halogen-free



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6	REF.
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector - Base Voltage	V _{CBO}	-400	V
Collector - Emitter Voltage	V _{CEO}	-400	V
Emitter - Base Voltage	V _{EBO}	-5	V
Collector Current - Continuous	I _C	-0.1	A
Collector Current - Pulsed	I _{CM}	-0.3	A
Collector Power Dissipation	P _C	350	mW
Junction, Storage Temperature	T _J , T _{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	I _C = -100μA, I _E =0	V _{(BR)CBO}	-400	-	-	V
Collector-Emitter Breakdown Voltage	I _C = -1mA, I _B =0	V _{(BR)CEO}	-400	-	-	V
Emitter-Base Breakdown Voltage	I _E = -100μA, I _C =0	V _{(BR)EBO}	-5	-	-	V
Collector Cut-Off Current	V _{CB} = -400V, I _E =0	I _{CB0}	-	-	-0.1	μA
Emitter Cut-Off Current	V _{EB} = -4V, I _C =0	I _{EBO}	-	-	-0.1	μA
DC Current Gain ¹	V _{CE} = -10V, I _C = -1mA	h _{FE}	70	-	-	
	V _{CE} = -10V, I _C = -10mA		80	-	300	
	V _{CE} = -10V, I _C = -50mA		40	-	-	
	V _{CE} = -10V, I _C = -100mA		40	-	-	
Collector-Emitter Saturation Voltage ¹	I _C = -10mA, I _B = -1mA	V _{CE(sat)}	-	-	-0.2	V
	I _C = -50mA, I _B = -5mA		-	-	-0.3	V
Base-Emitter Saturation Voltage ¹	I _C = -10mA, I _B = -1mA	V _{BE(sat)}	-	-	-0.75	V
Transition frequency	V _{CE} = -20V, I _C = -10mA	f _T	50	-	-	MHz

Note:

1. Tested with pulses tp=300 μs, duty cycle ≤ 2%

CHARACTERISTIC CURVES

