

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

FEATURES

- High Current Gain

MARKING

3SS

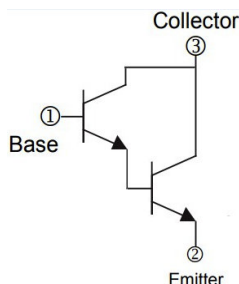
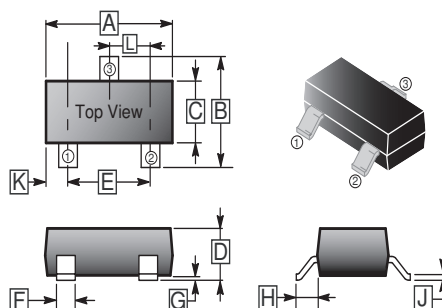
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

ORDER INFORMATION

Part Number	Type
MMBTA28	Lead (Pb)-free
MMBTA28-C	Lead (Pb)-free and Halogen-free

SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	0	0.18
B	2.10	2.95	H	0.55	REF.
C	1.20	1.7	J	0.08	0.20
D	0.89	1.3	K	0.6	REF.
E	1.70	2.3	L	0.95	BSC.
F	0.30	0.50			

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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CBO}	80	V
Collector-Emitter Voltage	V _{CEO}	80	
Emitter-Base Voltage	V _{EBO}	12	
Collector Current	I _C	500	mA
Collector Power Dissipation	P _C	200	mW
Thermal Resistance From Junction-Ambient	R _{θJA}	625	°C/W
Junction, Storage Temperature	T _J , T _{STG}	150, -55~150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	V _{(BR)CBO}	80	-	-	V	I _C =100μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{CEO(sus)}	80	-	-		I _C =100μA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	12	-	-		I _E =10μA, I _C =0
Collector Cut-off Current	I _{CBO}	-	-	0.1	μA	V _{CB} =60V, I _E =0
Collector Cut-off Current	I _{CES}	-	-	0.5	μA	V _{CE} =60V, V _{BE} =0
Emitter Cut-off Current	I _{EBO}	-	-	0.1	μA	V _{EB} =10V, I _C =0
DC Current Gain ¹	h _{FE(1)}	10	-	-	K	V _{CE} =5V, I _C =10mA
	h _{FE(2)}	10	-	-		V _{CE} =5V, I _C =100mA
Collector-Emitter Saturation Voltage ¹	V _{CE(sat)1}	-	-	1.2	V	I _C =10mA, I _B =0.01mA
	V _{CE(sat)2}	-	-	1.5		I _C =100mA, I _B =0.1mA
Base-Emitter Voltage ¹	V _{BE}	-	-	2	V	V _{CB} =5V, I _C =100mA
Collector output capacitance	C _{ob}	-	-	8	pF	V _{CB} =1V, I _E =0, f=1MHz
Transition Frequency	f _T	125	-	-	MHz	V _{CE} =5V, I _C =10mA, f=100MHz

Note:

1. Pulse test: pulse width ≤ 300μs, duty cycle ≤ 2%.

CHARACTERISTICS CURVE

