

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

FEATURES

- Epitaxial Planar Die Construction

MARKING

1P

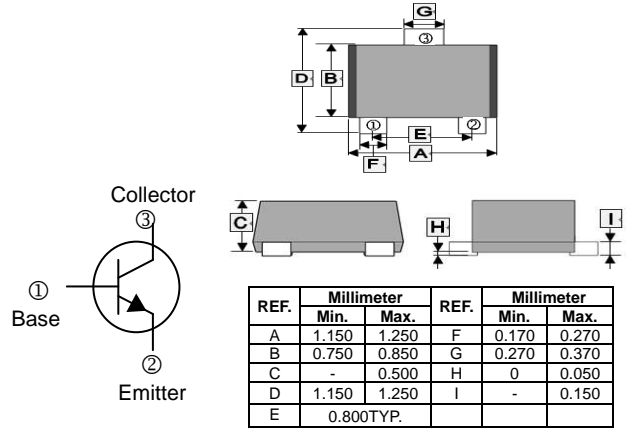
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-723	8K	7 inch

ORDER INFORMATION

Part Number	Type
MMBT2222AM-C	Lead (Pb)-free and Halogen-free

SOT-723



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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CBO}	75	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	6	V
Continuous Collector Current	I _C	500	mA
Power Dissipation	P _C	100	mW
Thermal Resistance from Junction-Ambient	R _{θJA}	1250	°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}	75	-	-	V	I _C =10μA, I _E =0
Collector-Emitter Breakdown Voltage ¹	V _{(BR)CEO}	40	-	-	V	I _C =10mA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	6	-	-	V	I _E =10μA, I _C =0
Collector Cut-off Current	I _{CB0}	-	-	0.01	μA	V _{CB} =60V, I _E =0
Collector Cut-off Current	I _{CEX}	-	-	0.01	μA	V _{CE} =30V, V _{BE(off)} = -3V
Emitter Cut-off Current	I _{EBO}	-	-	0.01	μA	V _{EB} =3V, I _C =0
DC Current Gain ¹	h _{FE}	100	-	300		V _{CE} =10V, I _C =150mA
		40	-	-		V _{CE} =10V, I _C =0.1mA
		42	-	-		V _{CE} =10V, I _C =500mA
Collector-Emitter Saturation Voltage ¹	V _{CE(sat)}	-	-	1	V	I _C =500mA, I _B =50mA
		-	-	0.3		I _C =150mA, I _B =15mA
Base-Emitter Saturation Voltage ¹	V _{BE(sat)}	-	-	2	V	I _C =500mA, I _B =50mA
		-	-	1.2		I _C =150mA, I _B =15mA
Transition Frequency	f _T	-	300	-	MHz	V _{CE} =20V, I _C =20mA, f=100MHz
Delay Time	t _d	-	10	-	nS	V _{CC} =30V, V _{BE(off)} = -0.5V I _C =150mA, I _{B1} =15mA
Rise Time	t _r	-	25	-		
Storage Time	t _s	-	225	-		
Fall Time	t _f	-	60	-		

Note:

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

CHARACTERISTIC CURVES

Static Characteristic

