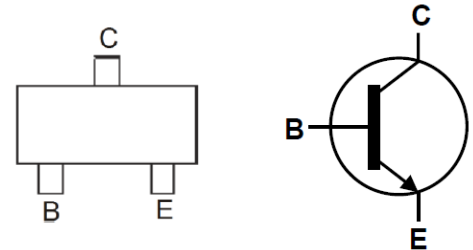


FEATURES AND BENEFITS

Product Summary		
I_C	600mA	@25 °C
BV_{CBO}	75V	@ $I_C=10\mu A$
BV_{CEO}	40V	@ $I_C=10mA$
BV_{EBO}	6V	@ $I_E=10\mu A$

- For General Purpose NPN Amplifier
- RoHS Compliant / Green EMC UL Flammability Classification Rating 94V-0
- Matte Tin (Sn) Lead finish Solderable per MIL-STD-202, Method 208
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.008 grams (Approximate)

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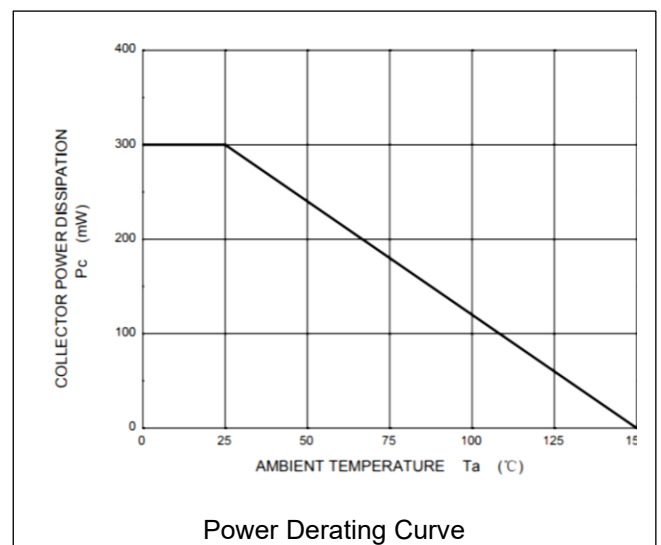
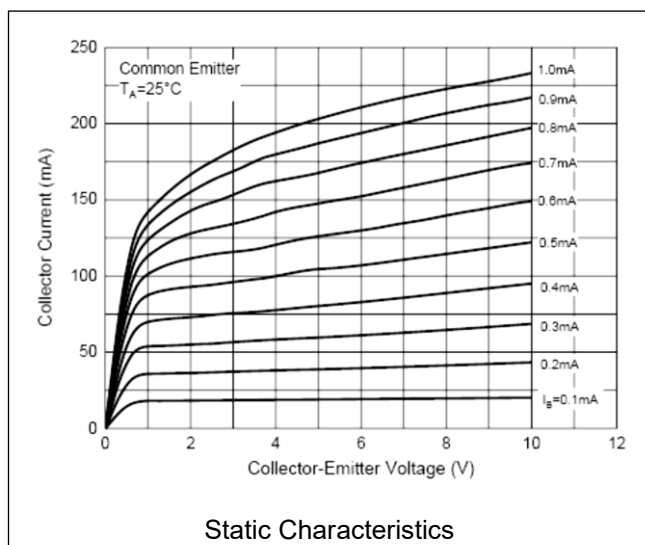
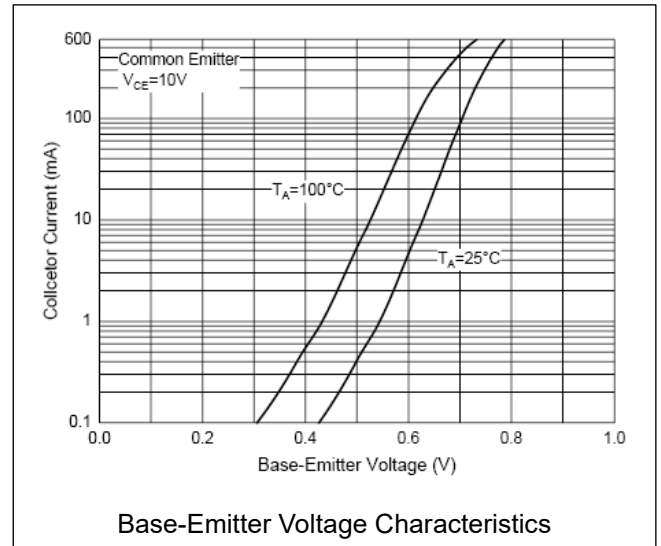
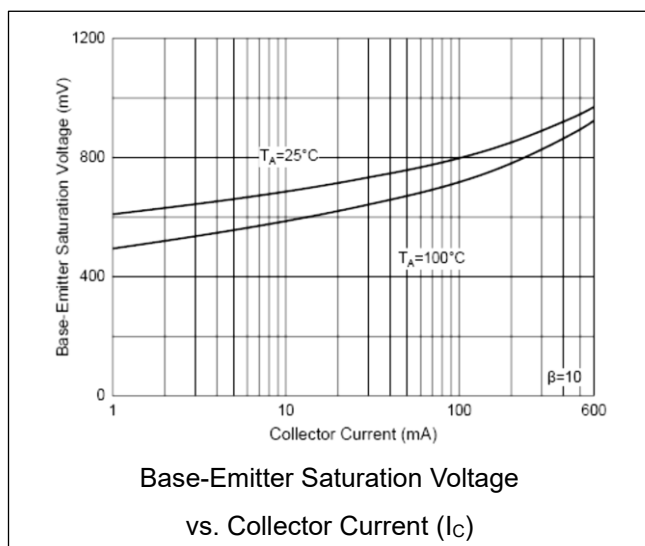
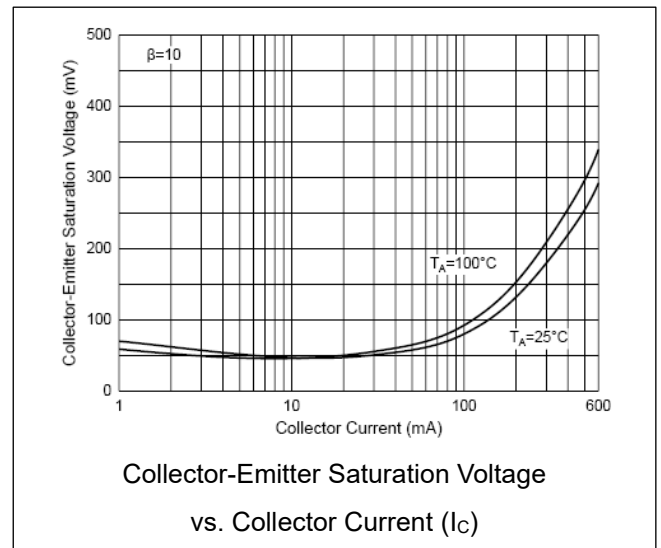
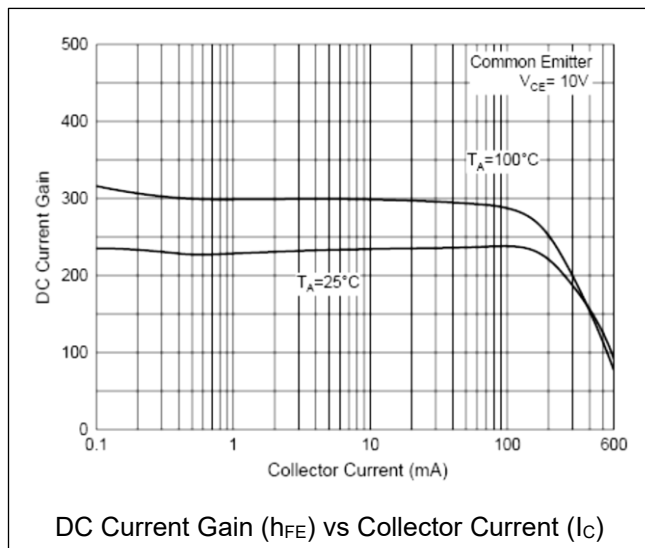
Maximum Ratings (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	75	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Collector Power Dissipation	P_T	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Thermal Resistance from Junction to Ambient*	$R_{\theta JA}$	417	°C/W

* Device mounted on 1"x1" FR4 PCB

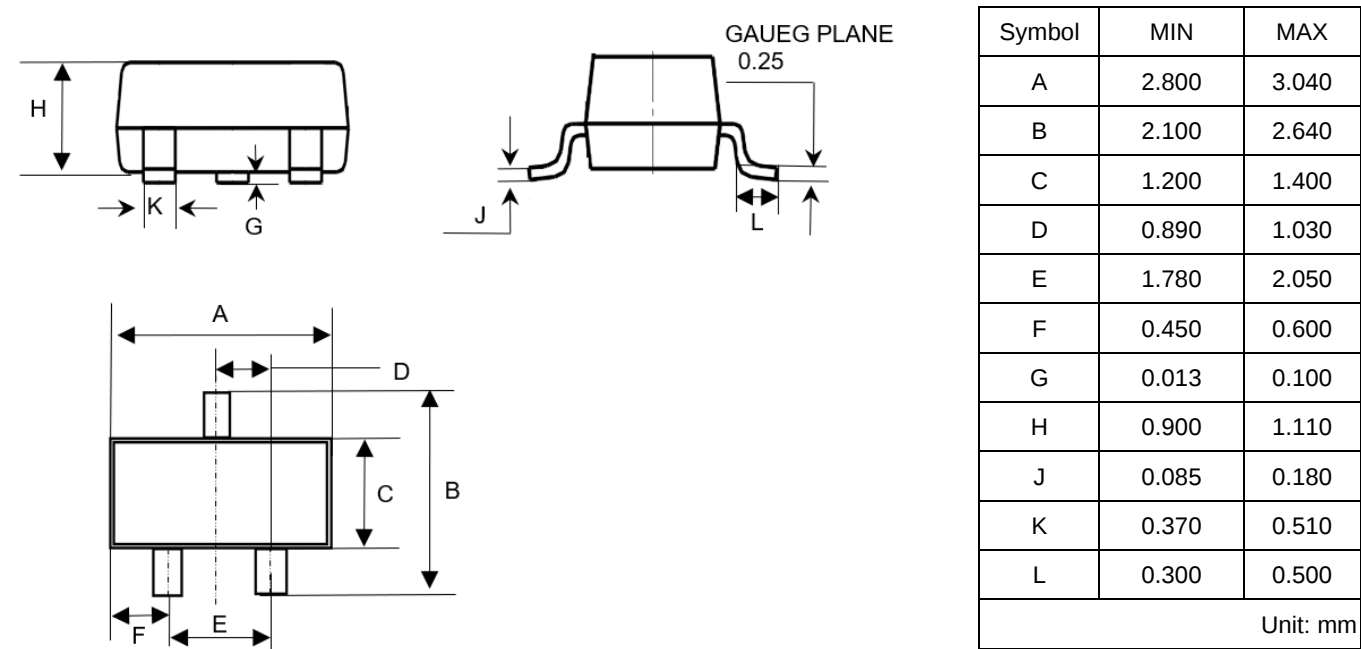
ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)					
PARAMETER	SYMBOL	CONDITION	MIN	MAX	UNIT
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	40		V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	75		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6		V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 60V, I_E = 0$		10	nA
Collector Cutoff Current	I_{CEX}	$V_{CE} = 60V, V_{BE} = 3V$		10	nA
DC Current Gain	h_{FE}	$I_C = 0.1mA, V_{CE} = 10V$	35	300	
		$I_C = 1mA, V_{CE} = 10V$	50		
		$I_C = 10mA, V_{CE} = 10V$	75		
		$I_C = 150mA, V_{CE} = 10V$	100		
		$I_C = 150mA, V_{CE} = 1V$	50		
		$I_C = 500mA, V_{CE} = 10V$	40		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 150mA, I_B = 15mA$		0.3	V
		$I_C = 500mA, I_B = 50mA$		1.0	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 150mA, I_B = 15mA$	0.6	1.2	V
		$I_C = 500mA, I_B = 50mA$		2.0	
Transition Frequency	f_T	$I_C = 10mA, V_{CE} = 20V, f = 100MHz$	300		MHz
Output Capacitance	C_{obo}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		8.0	pF
Input Capacitance	C_{ibo}	$V_{BE} = 0.5V, I_C = 0, f = 1MHz$		25	pF
Delay Time	t_d	$V_{CC} = 30V, V_{BE} = 0.5V, I_C = 150mA, I_{B1} = 15mA$		10	ns
Rise Time	t_r			25	
Storage Time	t_s	$V_{CC} = 30V, I_C = 150mA$		225	
Fall Time	t_f	$I_{B1} = I_{B2} = 15mA$		60	

RATING AND CHARACTERISTICS CURVES

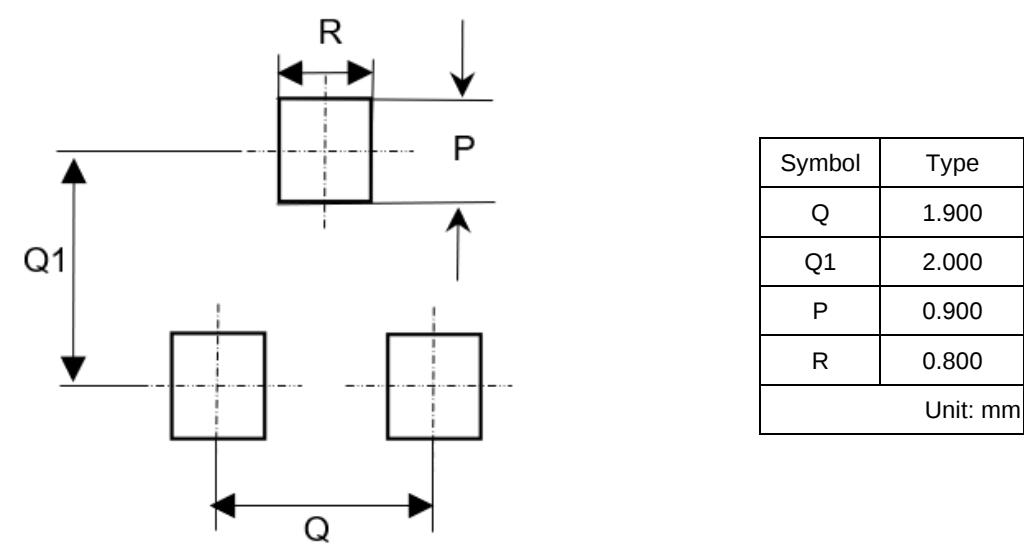


PACKAGE OUTLINE DIMENSIONS

SOT-23



SUGGESTED PAD LAYOUT



Land Pattern Recommendation

DEVICE MARKING AND ORDERING INFORMATION

DEVICE	Marking	Quantity	Packing
MMBT2222A	1P	3000/Reel	Tape & Reel

NOTICE:

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