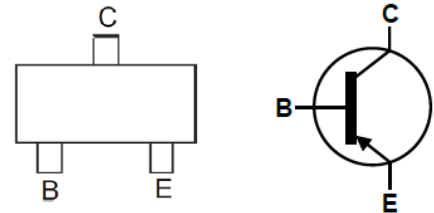


FEATURES AND BENEFITS

Product Summary		
I_C	-200mA	@25 °C
BV_{CBO}	-40V	@ $I_C=-10\mu A$
BV_{CEO}	-40V	@ $I_C=-1mA$
BV_{EBO}	-5V	@ $I_E=-10\mu A$

- For General Purpose PNP 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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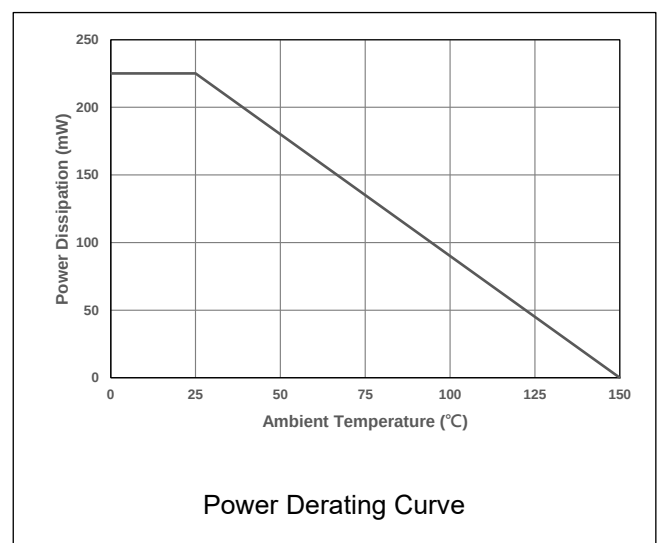
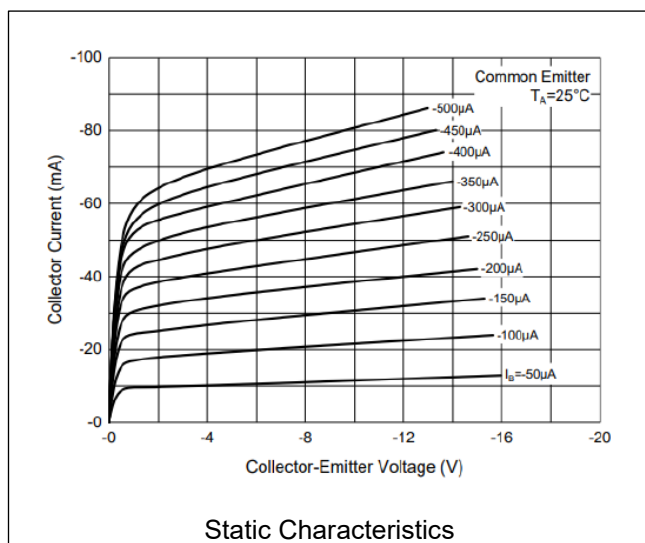
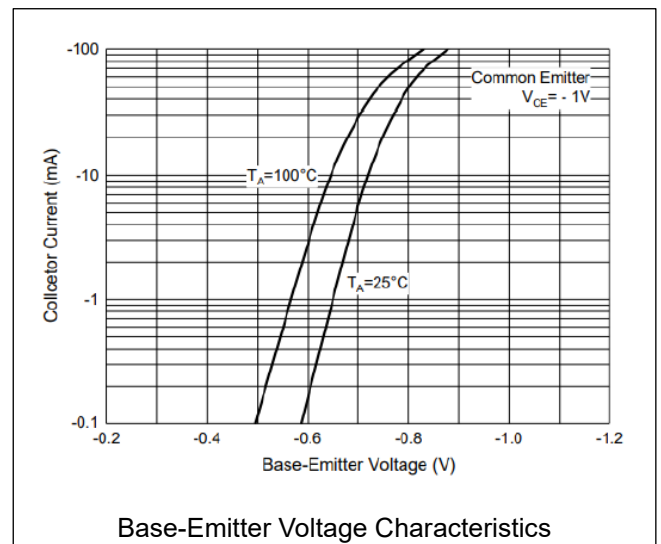
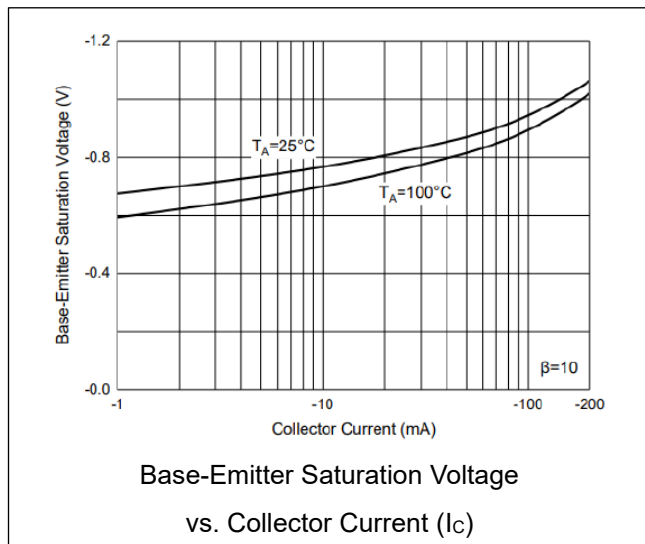
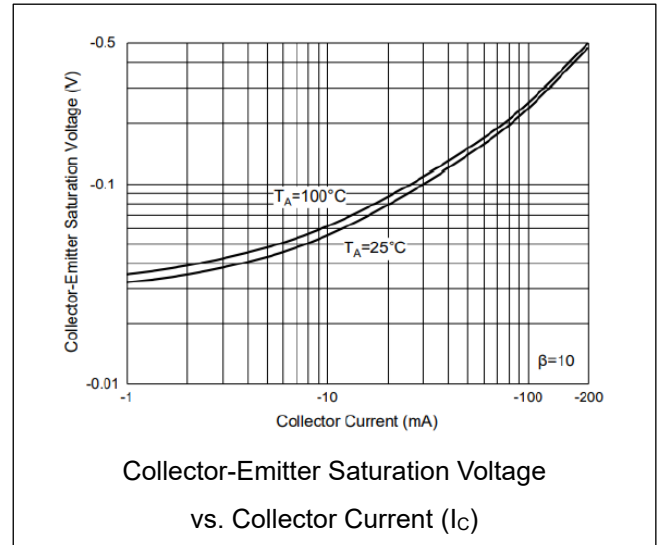
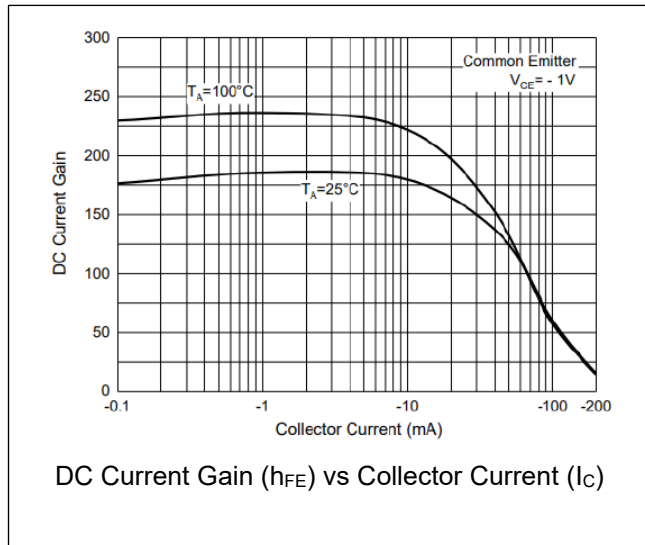
Maximum Ratings (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-200	mA
Collector Power Dissipation	P_T	225	mW
Junction Temperature	T_J	150	°C
Storage 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*	$R_{\theta JA}$	556	°C/W

* Device mounted on 1"x1" FR4 PCB

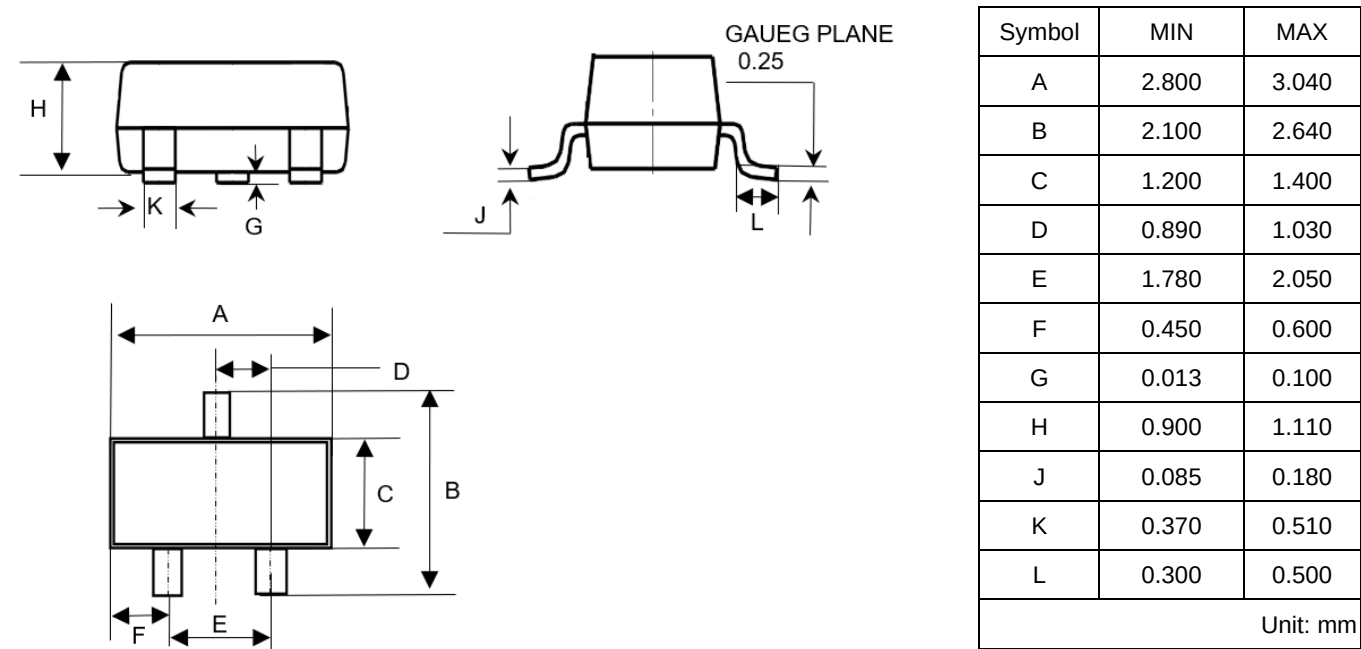
ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)					
PARAMETER	SYMBOL	CONDITION	MIN	MAX	UNIT
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-40		V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-40		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5		V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -40\text{V}, I_E = 0$		-100	nA
Collector Cutoff Current	I_{CEX}	$V_{CE} = -30\text{V}, V_{BE} = 3\text{V}$		-50	nA
Emitter-Base Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$		-100	nA
DC Current Gain	h_{FE}	$I_C = -10\text{mA}, V_{CE} = -1\text{V}$	100	300	
		$I_C = -50\text{mA}, V_{CE} = -1\text{V}$	60		
		$I_C = -100\text{mA}, V_{CE} = -1\text{V}$	30		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$		-0.25	V
		$I_C = -50\text{mA}, I_B = -5\text{mA}$		-0.40	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$	-0.65	-0.85	V
		$I_C = -50\text{mA}, I_B = -5\text{mA}$		-0.95	
Transition Frequency	f_T	$I_C = -10\text{mA}, V_{CE} = -20\text{V}, f = 100\text{MHz}$	250		MHz
Output Capacitance	C_{obo}	$V_{CB} = -5\text{V}, I_E = 0, f = 1\text{MHz}$		4.5	pF
Input Capacitance	C_{ibo}	$V_{BE} = -0.5\text{V}, I_C = 0, f = 1\text{MHz}$		10	pF
Noise Figure	NF	$I_C = -100\mu\text{A}, V_{CE} = -5\text{V},$ $R_S = 1\text{k}\Omega, f = 1\text{kHz}$		4.0	dB
Delay Time	t_d	$V_{CC} = -3\text{V}, V_{BE} = -0.5\text{V}$		35	ns
Rise Time	t_r	$I_C = -10\text{mA}, I_{B1} = I_{B2} = -1\text{mA}$		35	
Storage Time	t_s	$V_{CC} = -3\text{V}, I_C = -10\text{mA}$		225	
Fall Time	t_f	$I_{B1} = I_{B2} = -1\text{mA}$		75	

RATING AND CHARACTERISTICS CURVES

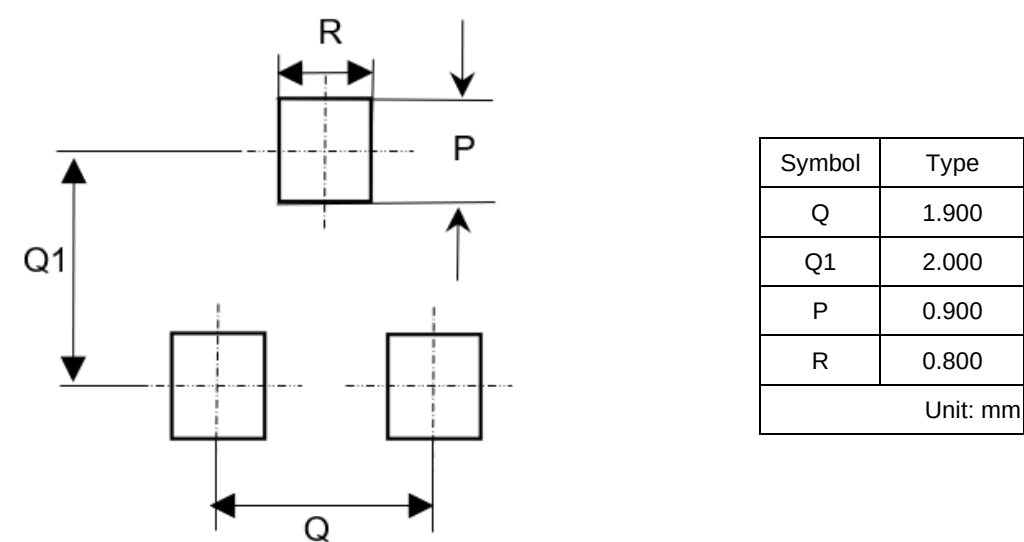


PACKAGE OUTLINE DIMENSIONS

SOT-23



SUGGESTED PAD LAYOUT



Land Pattern Recommendation

DEVICE MARKING AND ORDERING INFORMATION

DEVICE	Marking	Quantity	Packing
MMBT3906	2A	3000/Reel	Tape & Reel

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