

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

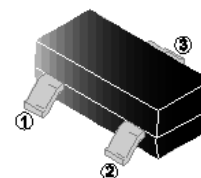
**FEATURES**

- Ideal for Medium Power Amplification and Switching
- Complementary to MMBT5551-C

**SOT-23**

**MARKING**

2L



**CLASSIFICATION OF h<sub>FE</sub>**

<b>Product-Rank</b>	MMBT5401-L-C	MMBT5401-H-C
<b>Range</b>	100~200	200~300

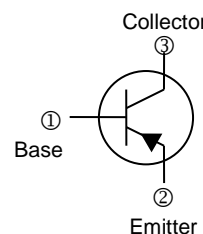
**PACKAGE INFORMATION**

<b>Package</b>	<b>MPQ</b>	<b>Leader Size</b>
SOT-23	3K	7 inch

**ORDER INFORMATION**

<b>Part Number</b>	<b>Type</b>
MMBT5401-□-C	Lead (Pb)-free and Halogen-free

\*□=h<sub>FE</sub> Rank



**ABSOLUTE MAXIMUM RATINGS** (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-160	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-150	
Emitter-Base Voltage	V <sub>EBO</sub>	-5	
Collector Current	I <sub>C</sub>	-0.6	A
Collector Power Dissipation	P <sub>C</sub>	0.3	W
Thermal Resistance from Junction-Ambient	R <sub>θJA</sub>	416	°C/W
Junction & Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

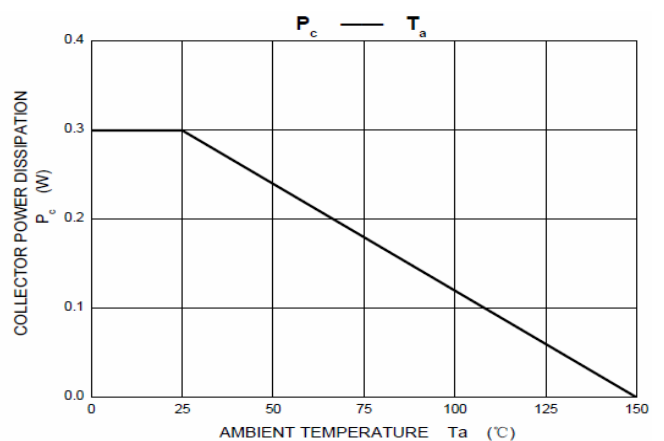
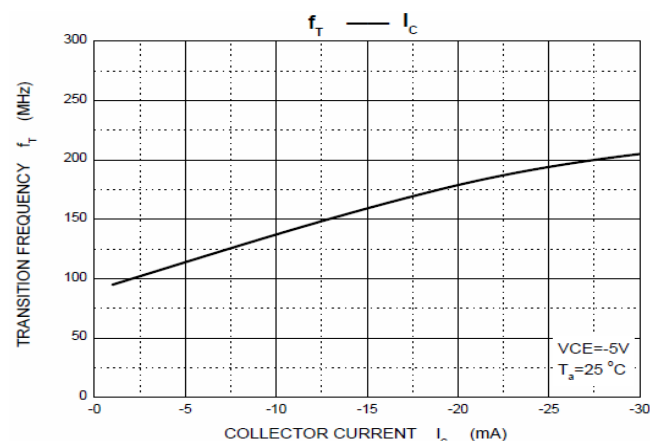
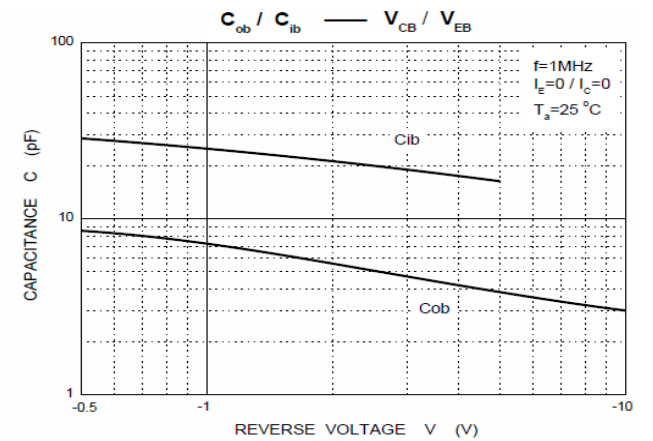
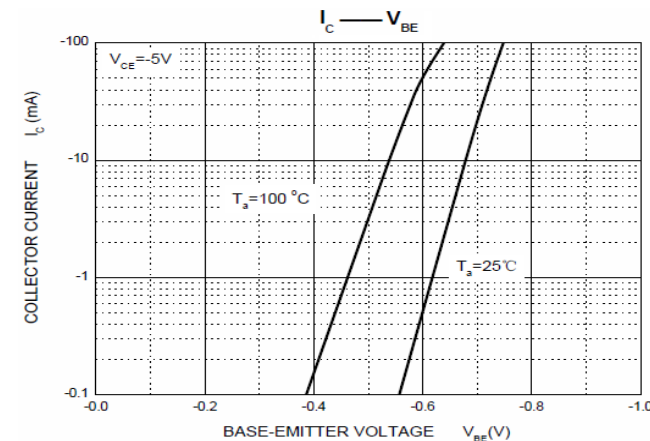
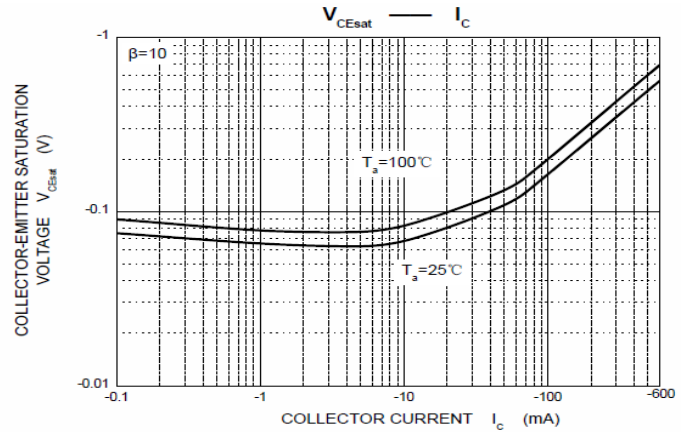
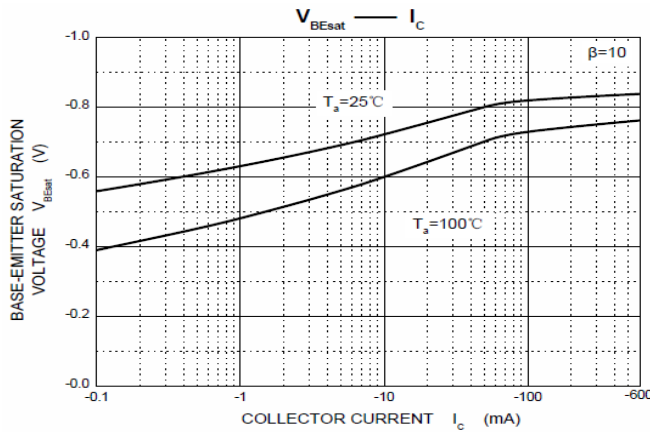
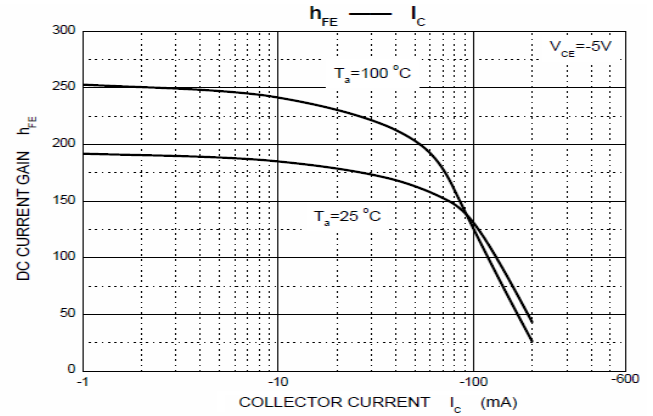
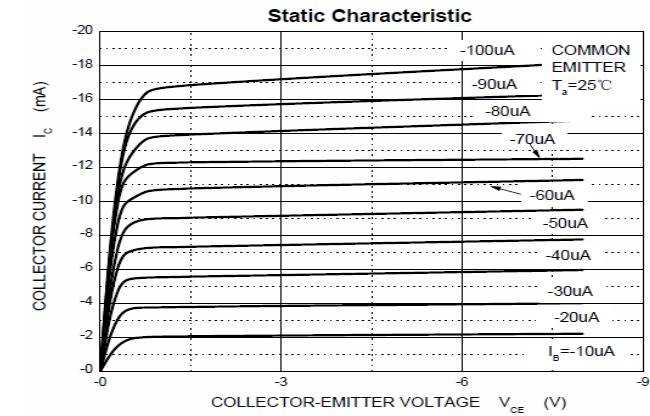
**ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CB0</sub>	-160	-	-	V	I <sub>C</sub> = -100μA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage <sup>1</sup>	V <sub>(BR)CEO</sub>	-150	-	-		I <sub>C</sub> = -1mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-5	-	-		I <sub>E</sub> = -10μA, I <sub>C</sub> =0
Collector Cut-off Current	I <sub>CB0</sub>	-	-	-0.1	μA	V <sub>CB</sub> = -120V, I <sub>E</sub> =0
Emitter Cut-off Current	I <sub>EBO</sub>	-	-	-0.1		V <sub>EB</sub> = -4V, I <sub>C</sub> =0
DC Current Gain <sup>1</sup>	h <sub>FE</sub>	80	-	-	-	V <sub>CE</sub> = -5V, I <sub>C</sub> = -1mA
		100	-	300		V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA
		50	-	-		V <sub>CE</sub> = -5V, I <sub>C</sub> = -50mA
Collector-Emitter Saturation Voltage <sup>1</sup>	V <sub>CE(sat)</sub>	-	-	-0.2	V	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA
		-	-	-0.5		I <sub>C</sub> = -50mA, I <sub>B</sub> = -5mA
Base-Emitter Saturation Voltage <sup>1</sup>	V <sub>BE(sat)</sub>	-	-	-1	V	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA
		-	-	-1		I <sub>C</sub> = -50mA, I <sub>B</sub> = -5mA
Transition Frequency	f <sub>T</sub>	100	-	-	MHz	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA, f=30MHz

Note:

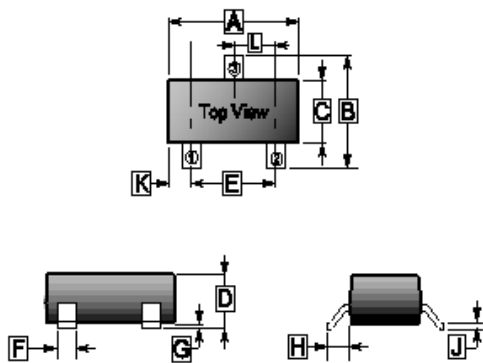
1. Pulse test: pulse width ≤ 300μs, duty cycle ≤ 2%.

**CHARACTERISTICS CURVE**



**PACKAGE OUTLINE DIMENSIONS**

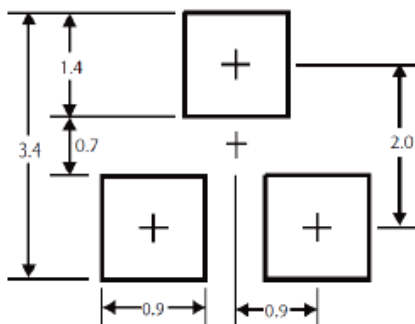
**SOT-23**



REF.	Millimeter	
	Min.	Max.
A	2.65	3.10
B	2.10	3.00
C	1.10	1.80
D	0.89	1.40
E	1.70	2.30
F	0.28	0.55
G	-	0.18
H	0.55 REF.	
J	0.05	0.26
K	0.60 REF.	
L	0.95 TYP.	

**MOUNTING PAD LAYOUT**

**SOT-23**



\*Dimensions in millimeters