

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

### FEATURES

- Ideal for Medium Power Amplification and Switching
- Complementary to MMBP5551-C

### MARKING

2L

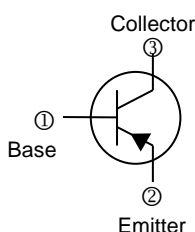
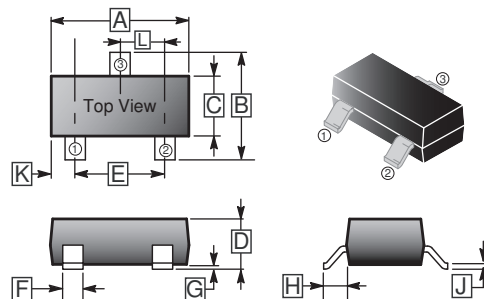
### PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

### ORDER INFORMATION

Part Number	Type
MMBP5401-C	Lead (Pb)-free and Halogen-free

### SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.65	3.10	G	0	0.18
B	2.10	3.00	H	0.55 REF.	
C	1.10	1.80	J	0.05	0.26
D	0	1.40	K	0.60 REF.	
E	1.70	2.30	L	0.95 TYP.	
F	0.28	0.55			

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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V <sub>CBO</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>	300	mW
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)CBO</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> = -100μA, I <sub>C</sub> = 0
Collector Cut-off Current	I <sub>CBO</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>	-	-	-0.5	V	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> = -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**

Static Characteristic

