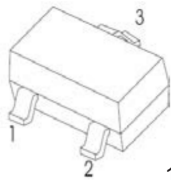




FEATURES

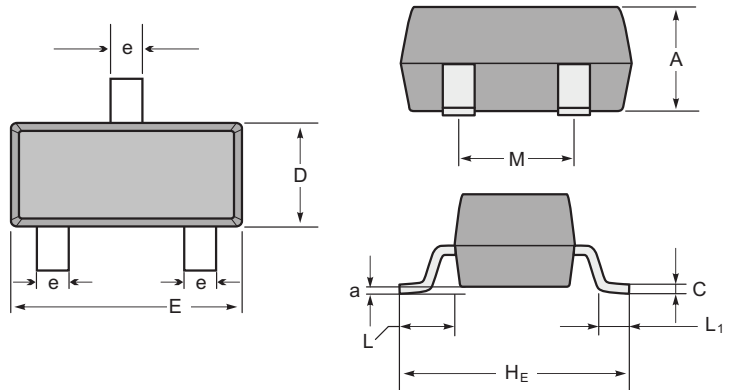
- Complementary to MMBT5551
- Ideal for Medium Power Amplification and Switching



1.BASE
2.EMITTER
3.COLLECTOR

Marking

Type number	Marking code
MMBT5401	2L



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector–Base Voltage	V_{CB0}	-160	V
Collector–Emitter Voltage	V_{CEO}	-150	V
Emitter–Base Voltage	V_{EBO}	-5	V
Collector Current — Continuous	I_C	-0.6	A
Collector Dissipation	P_C	0.3	W
Thermal Resistance From Junction To Ambient	R_{thJA}	416	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	°C

MMBT5401

CLASSIFICATION OF $h_{FE(1)}$

RANK	L	H
RANGE	100-200	200-300

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}, I_B = 0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -120V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC current gain	h_{FE1}	$V_{CE} = -5V, I_C = -1\text{ mA}$	80			
	h_{FE2}	$V_{CE} = -5V, I_C = -10\text{ mA}$	100		300	
	h_{FE3}	$V_{CE} = -5V, I_C = -50\text{ mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$			-0.2	V
	$V_{CE(sat)2}$	$I_C = -50\text{ mA}, I_B = -5\text{ mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$			-1	V
	$V_{BE(sat)2}$	$I_C = -50\text{ mA}, I_B = -5\text{ mA}$			-1	V
Transition frequency	f_T	$V_{CE} = -25V, I_C = -10\text{ mA}, f = 30\text{ MHz}$	100			MHZ

RATING AND CHARACTERISTIC CURVES (MMBT5401)

