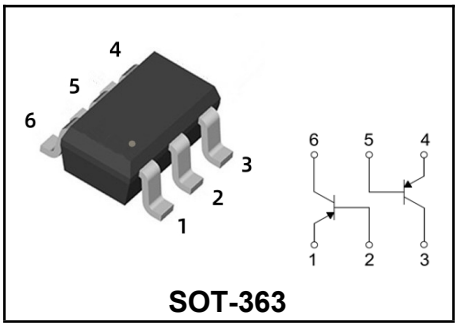
Plastic-Encapsulate Transistors

DUAL TRANSISTOR (PNP+PNP)



SOT-363

FEATURES

- Complementary to MMDT5551DW
- Small Surface Mount Package
- Ideal for Medium Power Amplificationand Switching

Marking Code	
MMBT5401DW	2L

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

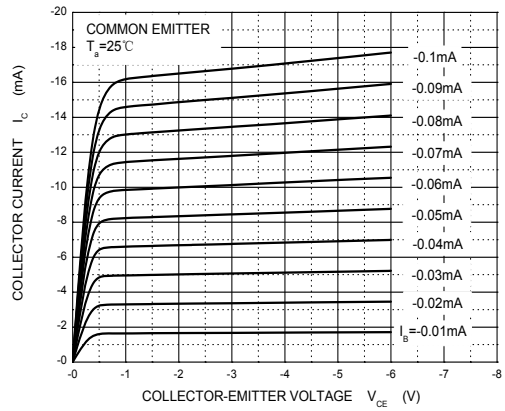
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-600	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	625	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55～+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

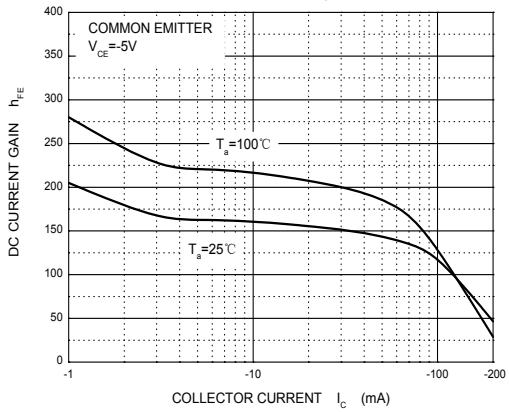
Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Collector-base breakdown voltage	I_C=-100μA, I_E=0	$V_{(BR)CBO}$	-160			V
Collector-emitter breakdown voltage	I_C=-1mA, I_B=0	$V_{(BR)CEO}$	-150			V
Emitter-base breakdown voltage	I_E=-10μA, I_C=0	$V_{(BR)EBO}$	-5			V
Collector cut-off current	V_{CB}=-120V, I_E=0	I_{CBO}			-50	nA
Emitter cut-off current	V_{EB}=-3V, I_C=0	I_{EBO}			-50	nA
DC current gain	V_{CE}=-5V, I_C=-1mA	h_{FE}	50			
	V_{CE}=-5V, I_C=-10mA		60		300	
	V_{CE}=-5V, I_C=-50mA		50			
Collector-emitter saturation voltage	I_C=-50mA, I_B=-5mA	$V_{CE(sat)}$			-0.5	V
	I_C=-10mA, I_B=-1mA				-0.2	V
Base-emitter saturation voltage	I_C=-50mA, I_B=-5mA	$V_{BE(sat)}$			-1	V
	I_C=-10mA, I_B=-1mA				-1	V
Transition frequency	V_{CE}=-10V,I_C=-10mA , f=100MHz	f_T	100			MHz
Collector output capacitance	V_{CB}=-10V, I_E=0, f=1MHz	C_{ob}			6	pF

Typical Characteristics

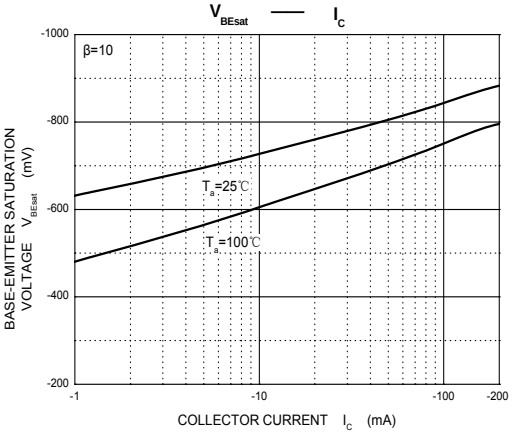
Static Characteristic



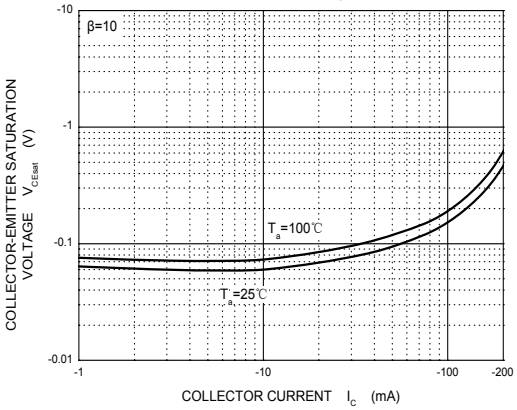
h_{FE} —— I_C



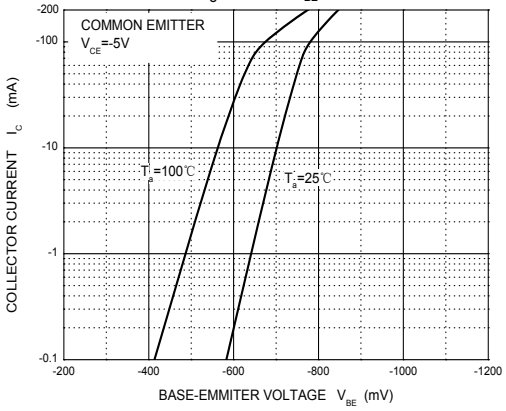
V_{BEsat} —— I_C



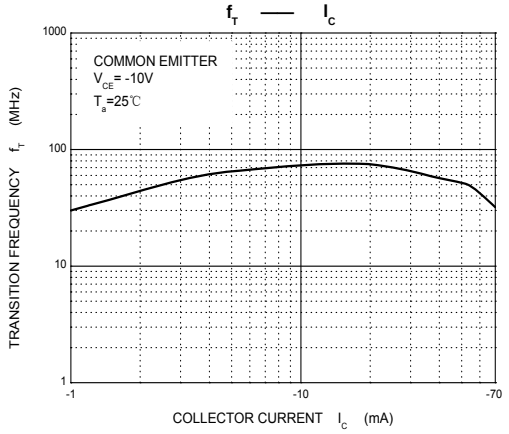
V_{CEsat} —— I_C



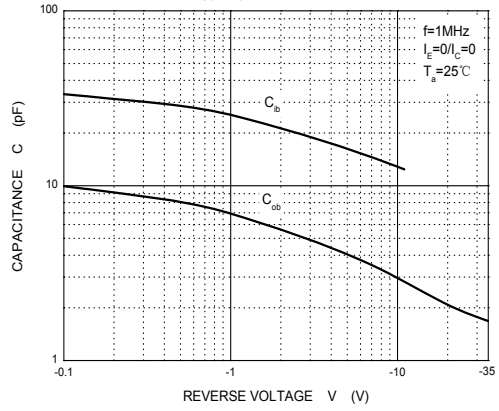
I_C —— V_{BE}



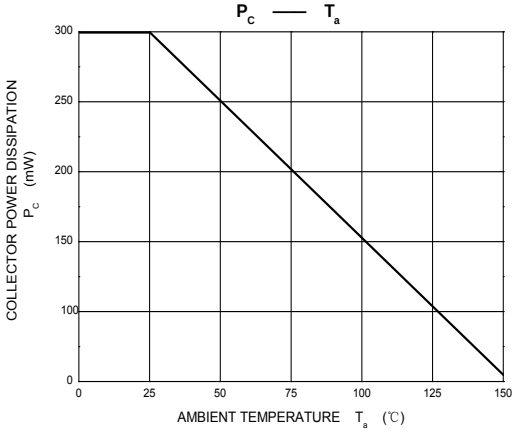
f_T —— I_C



C_{ob} / C_{ib} —— V_{CB} / V_{EB}



P_C —— T_a

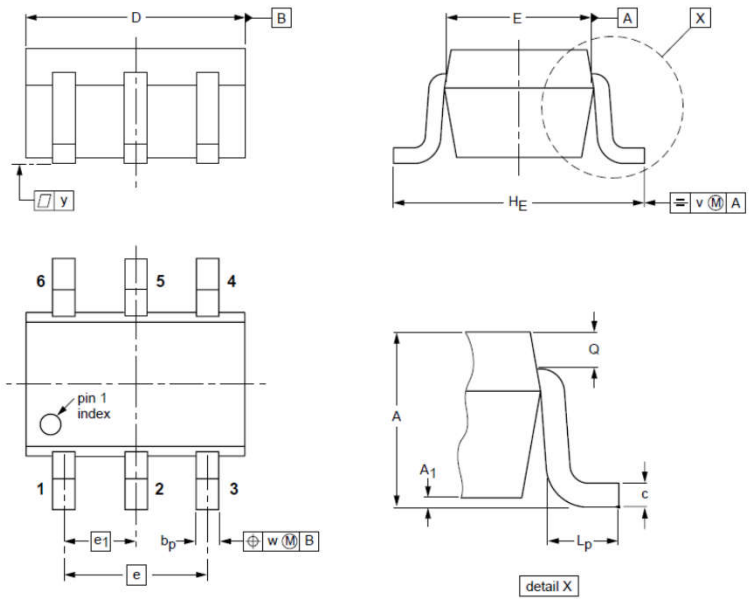


Ordering information

Package	Packing Description	Packing Quantity
SOT-363	Tape/Reel,7”reel	3000PCS/Reel 120000PCS/Carton

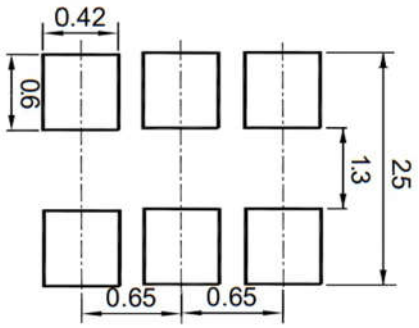
Package Dimensions

SOT-363



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	-	0.1	-	3.94
bp	0.20	0.30	7.87	11.81
c	0.10	0.25	3.94	9.84
D	1.8	2.2	70.87	86.61
E	1.15	1.35	45.28	53.15
e	1.3		51.18	
e1	0.65		25.6	
HE	2.0	2.2	78.74	86.6
Lp	0.15	0.45	5.90	17.71
Q	0.15	0.25	5.90	9.84
v	0.2		7.78	
w	0.2		7.78	
y	0.1		3.94	

The recommended mounting pad size



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