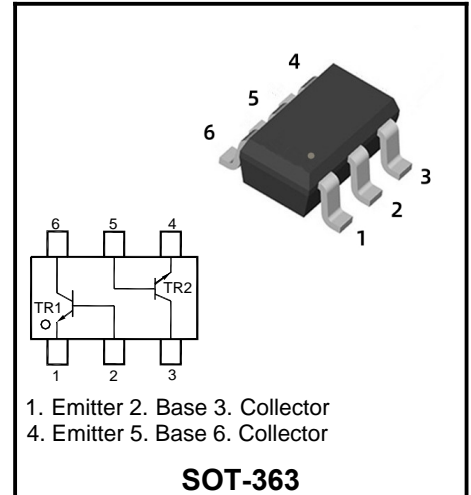


NPN Silicon Epitaxial Planar Transistors
for high voltage amplifier applications.

Marking Code	
MMBT5551DW	K4N



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	180	V
Collector Emitter Voltage	V_{CEO}	160	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics (Ta=25°C unless otherwise specified.)

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}, I_C = 1\text{ mA}$	h_{FE}	80	-	-
at $V_{CE} = 5\text{ V}, I_C = 10\text{ mA}$	h_{FE}	80	250	-
at $V_{CE} = 5\text{ V}, I_C = 50\text{ mA}$	h_{FE}	30	-	-
Collector Base Cutoff Current at $V_{CB} = 120\text{ V}$	I_{CBO}	-	50	nA
Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$	I_{EBO}	-	50	nA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	180	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	160	-	V
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}, I_B = 1\text{ mA}$	$V_{CE(sat)}$	-	0.15	V
at $I_C = 50\text{ mA}, I_B = 5\text{ mA}$		-	0.2	
Base Emitter Saturation Voltage at $I_C = 10\text{ mA}, I_B = 1\text{ mA}$	$V_{BE(sat)}$	-	1	V
at $I_C = 50\text{ mA}, I_B = 5\text{ mA}$		-	1	
Gain Bandwidth Product at $V_{CE} = 10\text{ V}, I_C = 10\text{ mA}, f = 100\text{ MHz}$	f_T	100	300	MHz
Collector Base Capacitance at $V_{CB} = 10\text{ V}, f = 1\text{ MHz}$	C_{cbo}	-	6	pF

Typical Characteristics

Fig. 1 $h_{FE} - I_C$

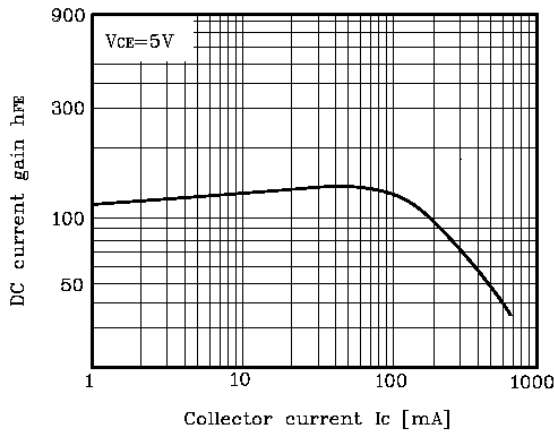


Fig. 2 $I_C - V_{BE}$

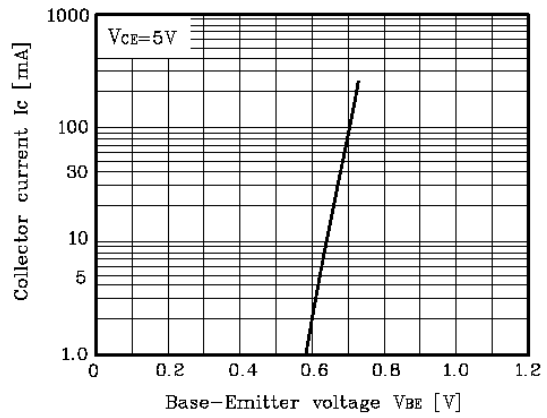


Fig. 3 $f_T - I_C$

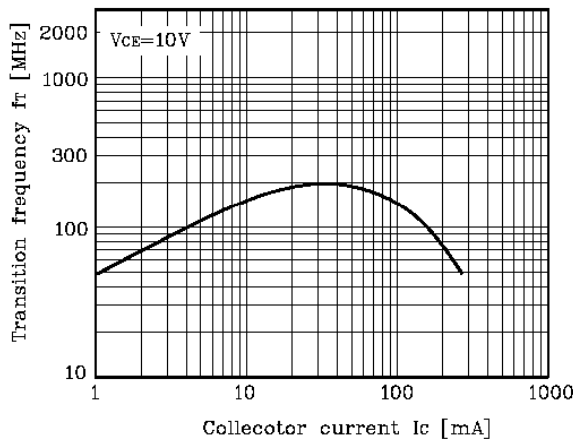


Fig. 4 $V_{CE(sat)}, V_{BE(sat)} - I_C$

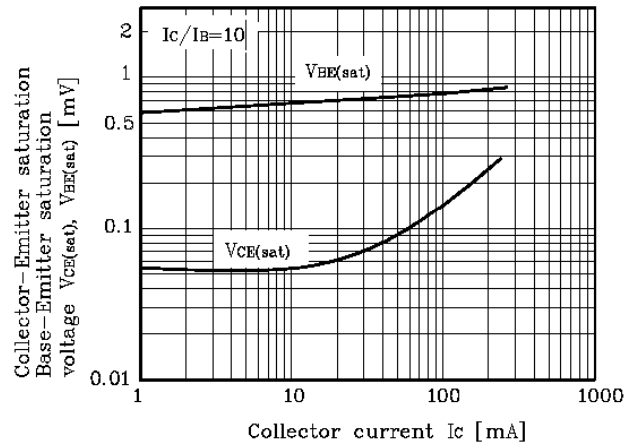


Fig. 5 $C_{ob} - V_{CB}$

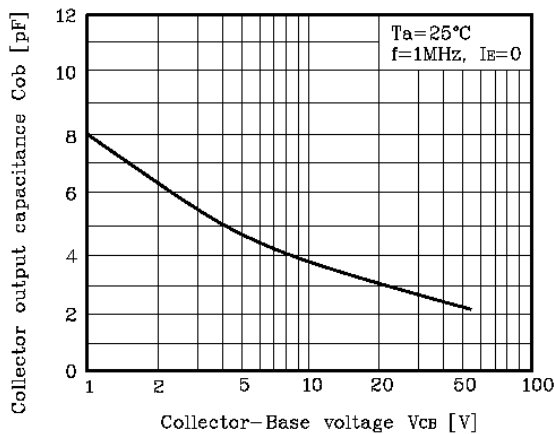
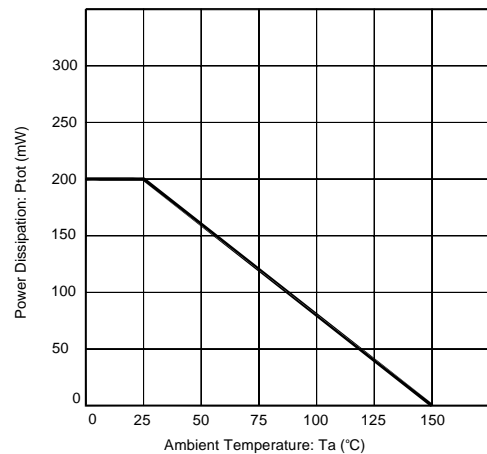


Fig. 6 $P_{tot} - T_a$



Ordering information

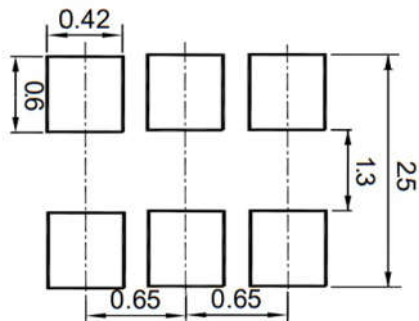
Package	Packing Description	Packing Quantity
SOT-363	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

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



Disclaimer

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