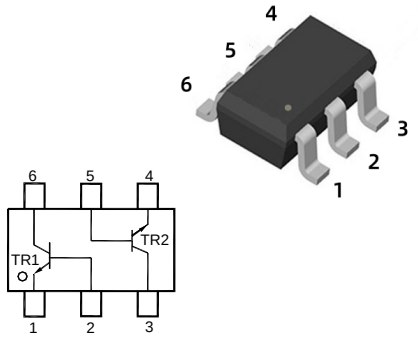
DUAL NPN Silicon Epitaxial Planar Transistors

for high voltage amplifier applications.

Marking Code	
MMBT5551DW	**K4N**



1. Emitter 2. Base 3. Collector
4. Emitter 5. Base 6. Collector

SOT-363

Absolute Maximum Ratings (Ta=25℃)

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	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Characteristics (Ta=25℃ unless otherwise specified.)

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

Typical Characteristics

Fig. 1 h_{FE} - I_C

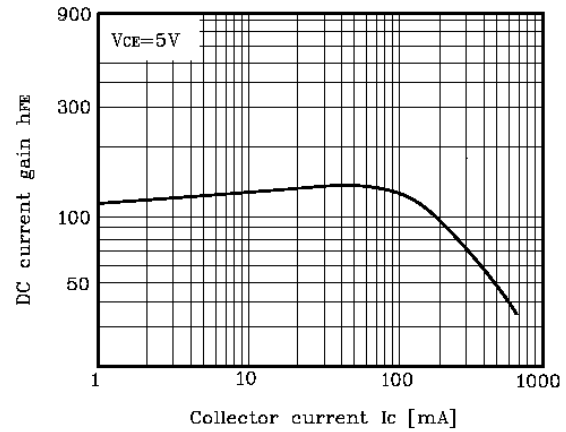


Fig. 2 I_C - V_{BE}

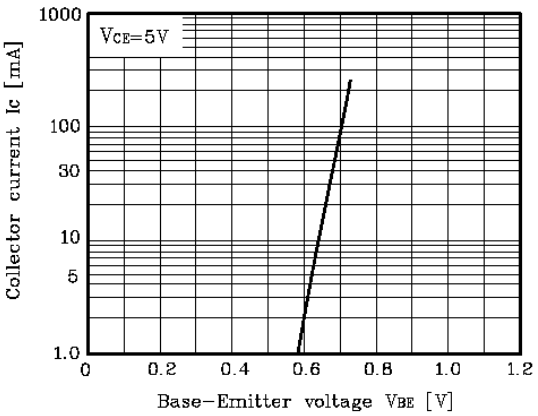


Fig. 3 f_T - I_C

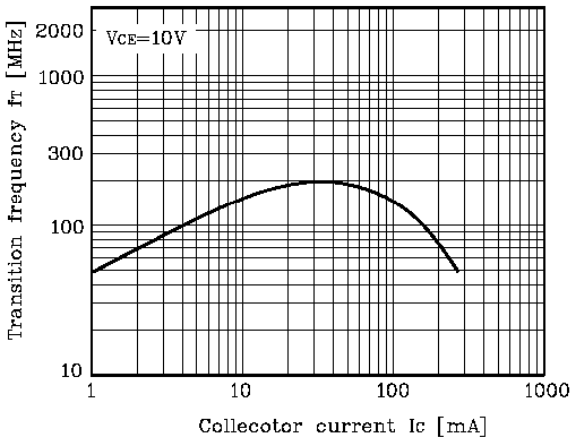


Fig. 4 $V_{CE(sat)}$, $V_{BE(sat)}$ - I_C

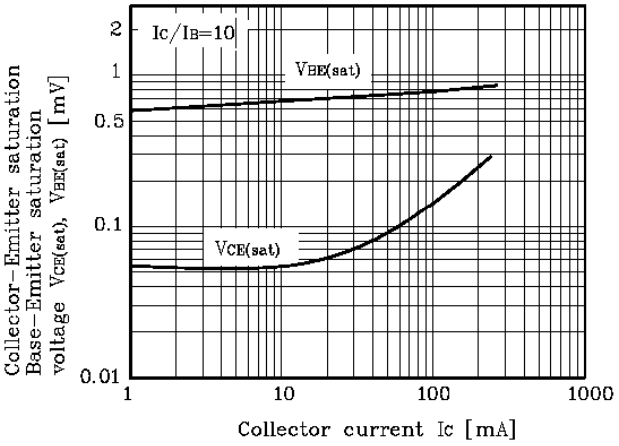


Fig. 5 C_{ob} - V_{CB}

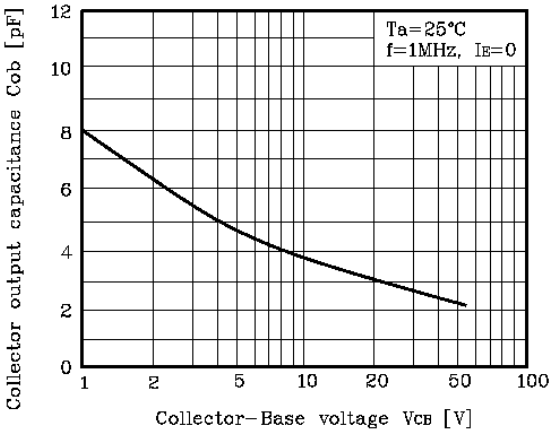
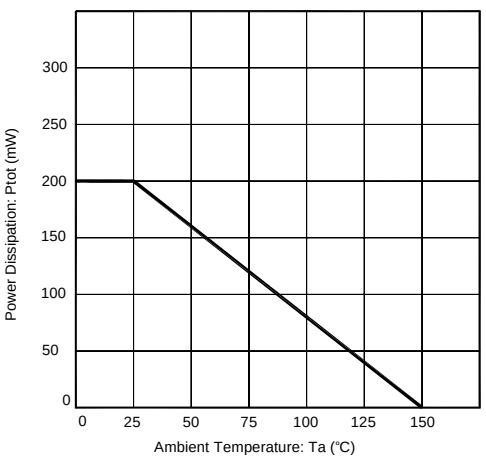


Fig.6 P_{tot} - T_a

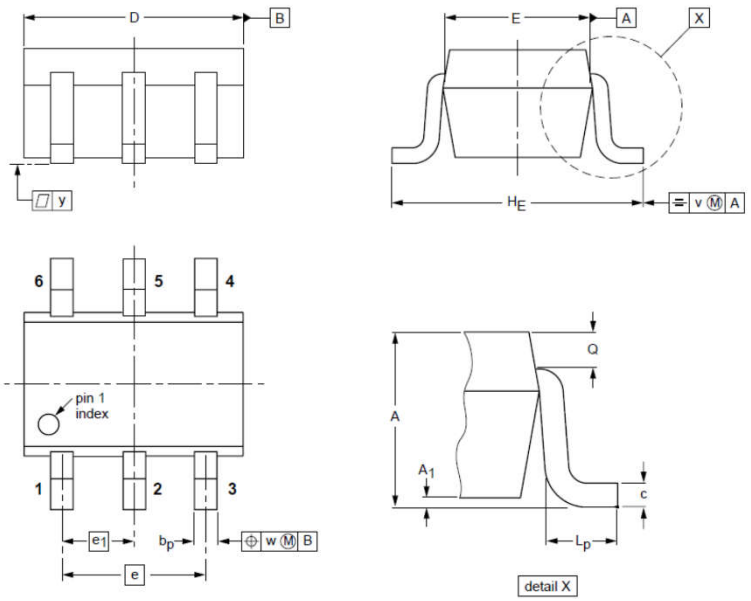


Ordering information

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

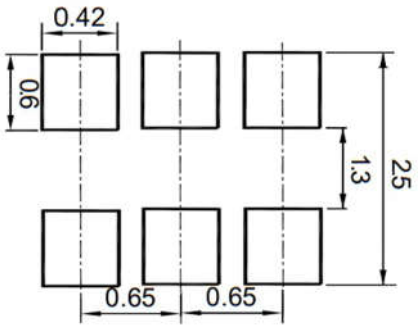
Package Dimensions

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



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