

## SOT-363 Plastic-Encapsulate Transistors

DUAL TRANSISTOR (PNP+PNP)

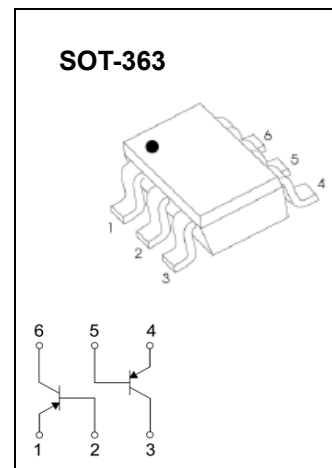
### Features:

- Epitaxial Planar Die Construction
- Complementary NPN Type Available(MMDT 5551)
- Ideal for Medium Power Amplification and Switching

MRKING:K4M

MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)

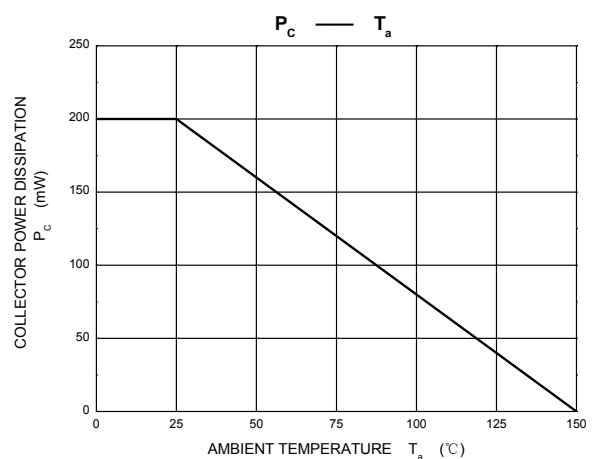
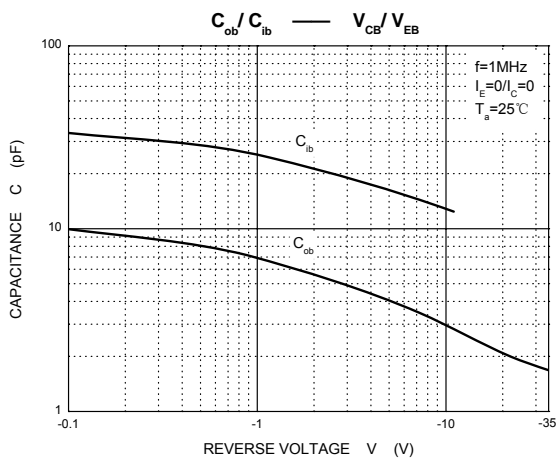
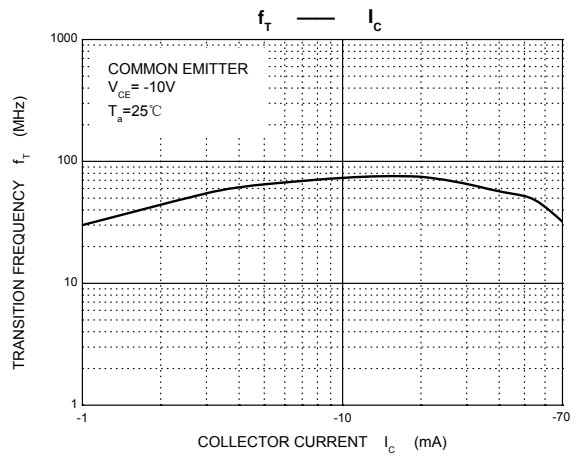
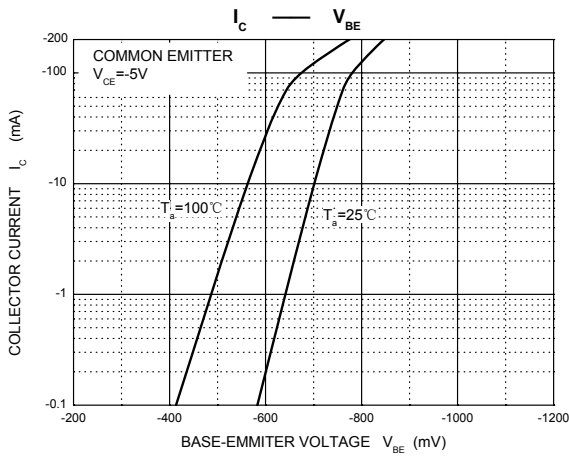
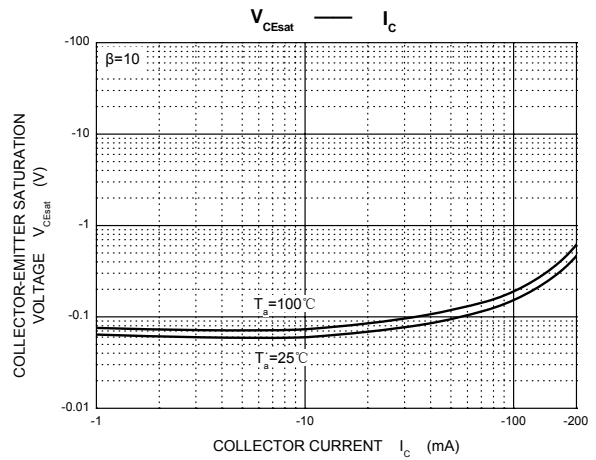
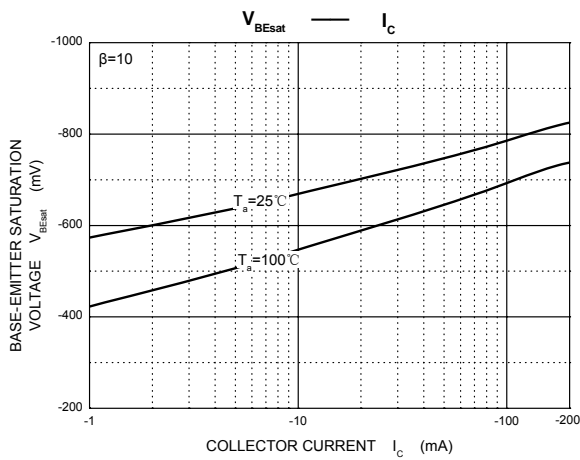
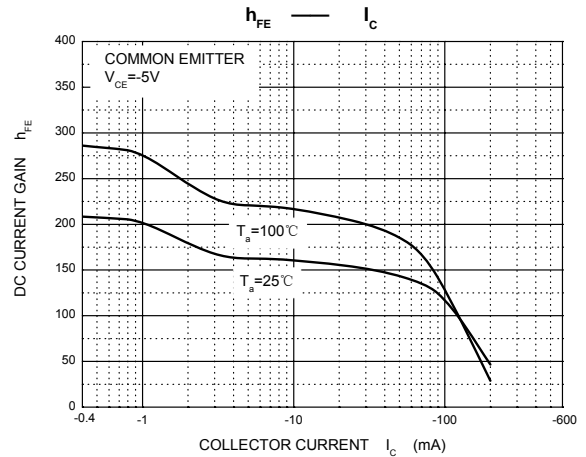
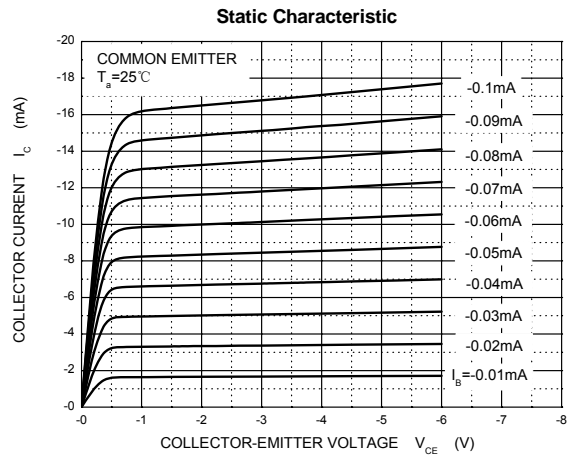
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector- Base Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-150	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-0.2	A
$P_C$	Collector Power Dissipation	0.2	W
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$



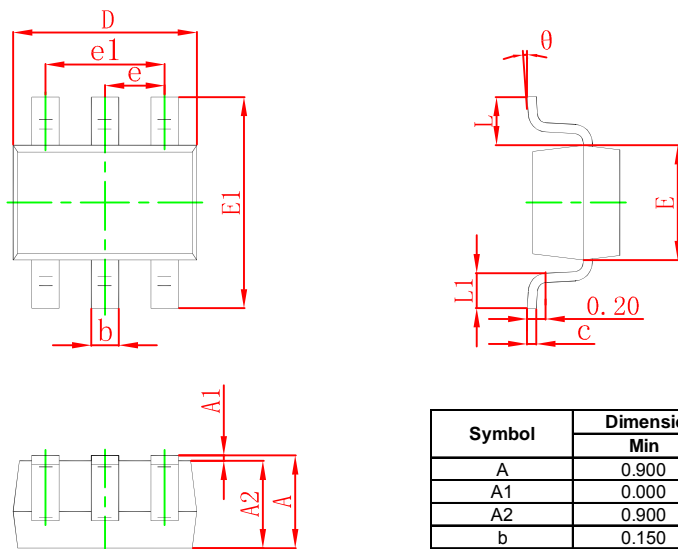
ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$  unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$ , $I_E=0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$ , $I_B=0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}$ , $I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-120\text{V}$ , $I_E=0$			-0.05	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-3\text{V}$ , $I_C=0$			-0.05	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-5\text{V}$ , $I_C=-1\text{mA}$	50			
	$h_{FE(2)}$	$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$	100		300	
	$h_{FE(3)}$	$V_{CE}=-5\text{V}$ , $I_C=-50\text{mA}$	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	$f_T$	$V_{CE}=-10\text{V}$ , $I_C=-10\text{mA}$ , $f=100\text{MHz}$	100			MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$			6	pF
Noise Figure	NF	$V_{CE}=-5.0\text{V}$ , $I_C=-200\mu\text{A}$ , $R_S=10\Omega$ , $f=1.0\text{kHz}$			8.0	dB

**Typical Characteristics**

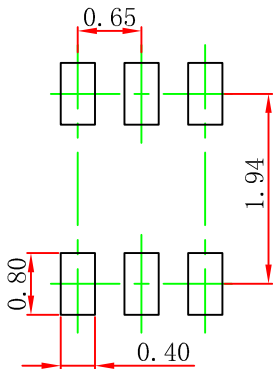


### SOT-363 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

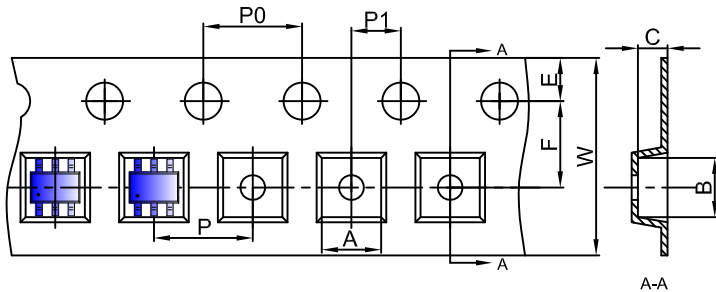
### SOT-363 Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05$ mm.
  3. The pad layout is for reference purposes only.

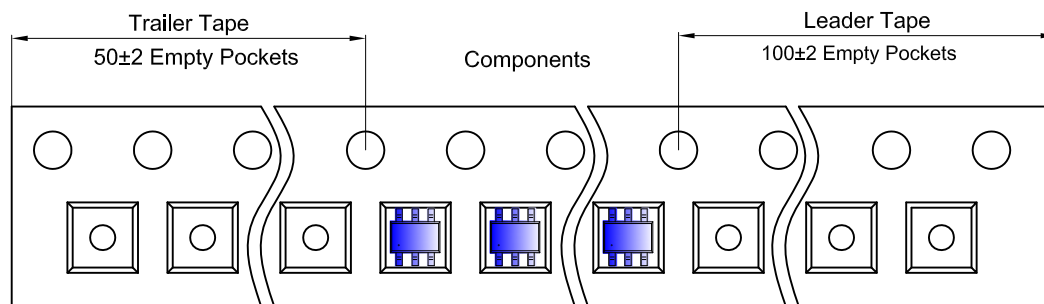
**SOT-363 Tape and Reel**

SOT-363 Embossed Carrier Tape

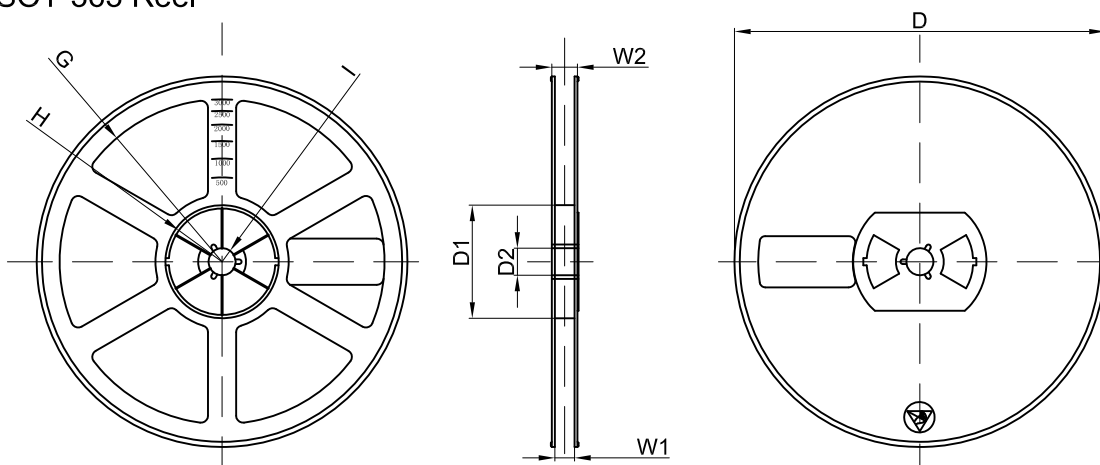


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-363 Tape Leader and Trailer



SOT-363 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	