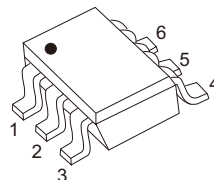


## FEATURES

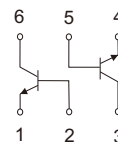
- Epoxy meets UL-94 V-0 flammability rating
- Complementary to MMDT5401
- Epitaxial Planar Die Construction
- Ideal for Medium Power Amplification and Switching

SOT-363



## MECHANICAL DATA

- Case: SOT-363
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Marking: K4N



## MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	$V_{CEO}$	V	160
Collector-Base Voltage	$V_{CBO}$	V	180
Emitter-Base Voltage	$V_{EBO}$	V	6
Collector Current-Continuous	$I_C$	mA	200
Collector Power Dissipation	$P_D$	mW	200
Operation Junction temperature	$T_J$	$^\circ\text{C}$	-55 to +150
Storage Temperature	$T_{STG}$	$^\circ\text{C}$	-55 to +150

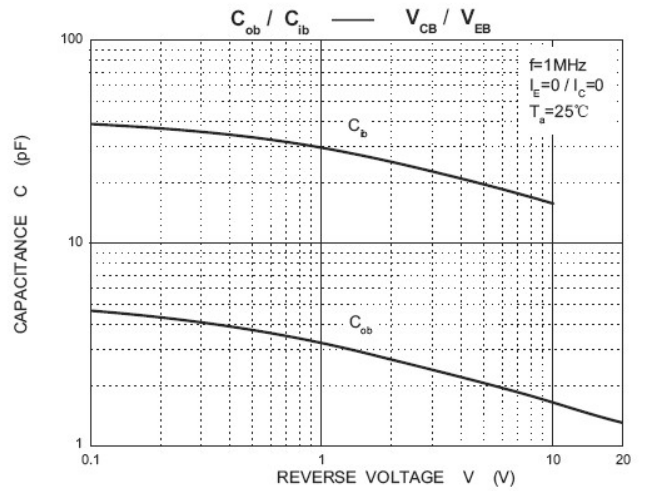
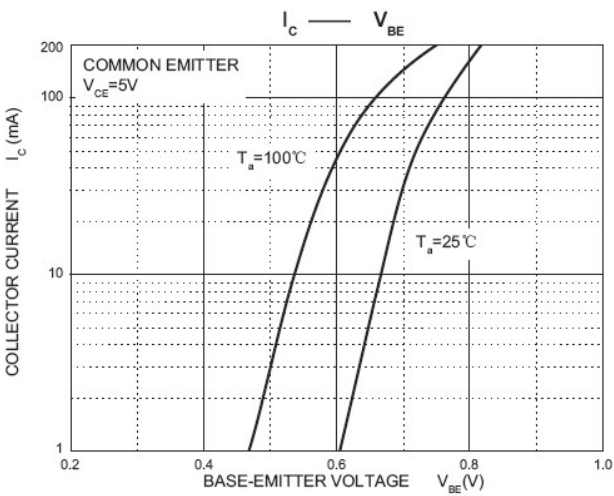
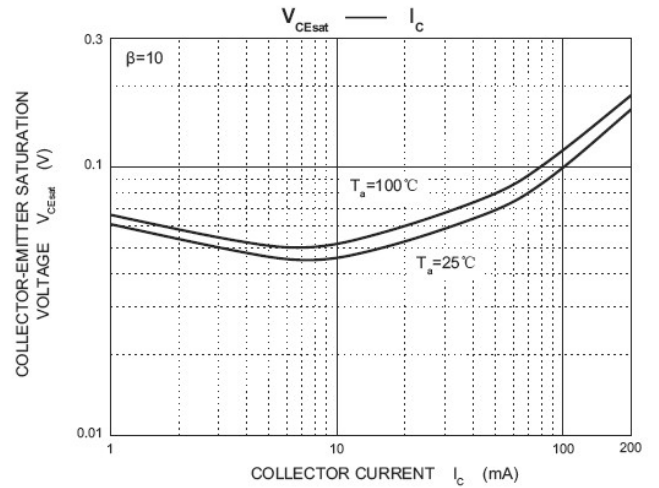
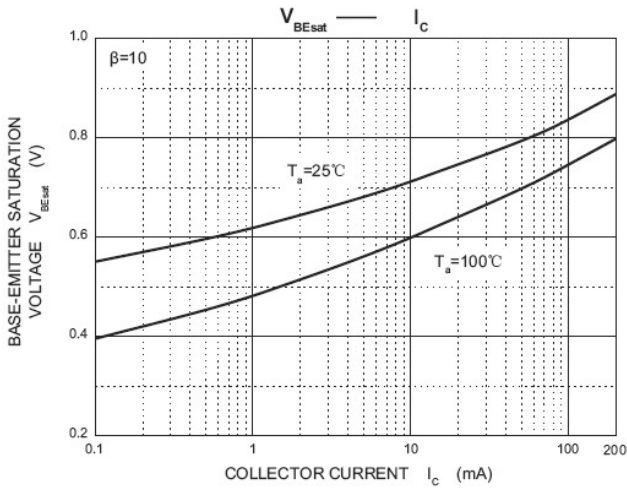
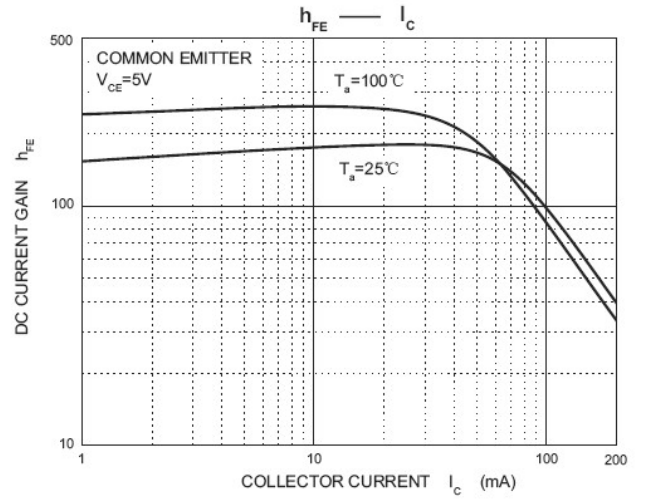
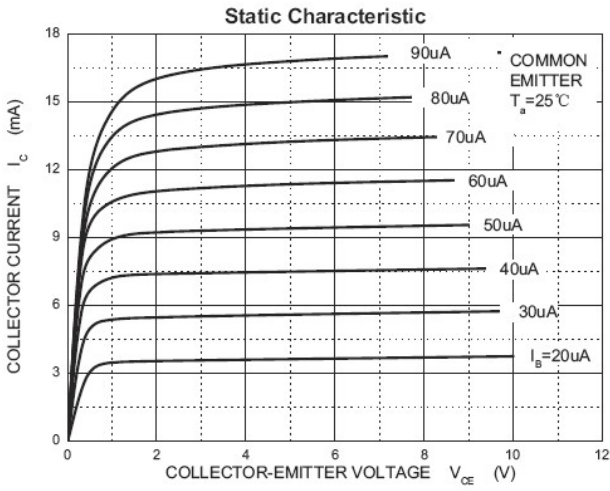
# MMDT5551

## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

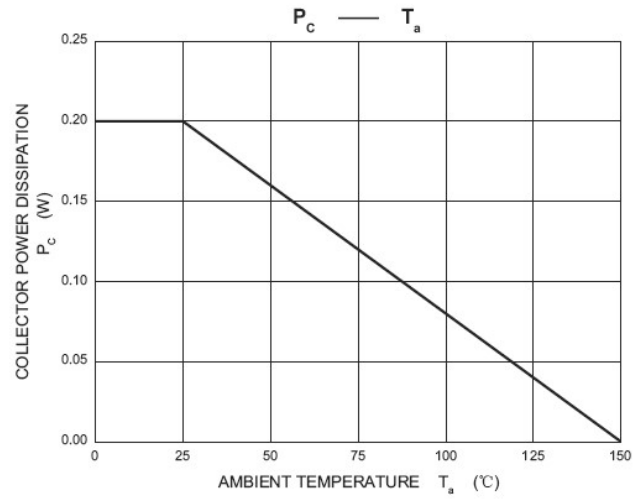
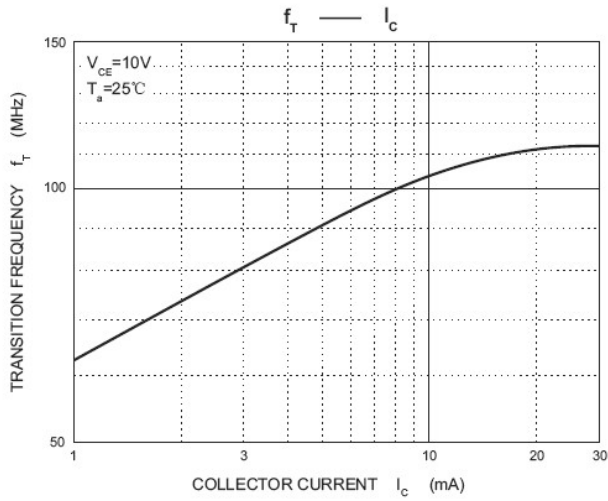
Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	V	$I_C=1.0\text{mA}, I_B=0$	160	---
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	$I_C=100\mu\text{A}, I_E=0$	180	---
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	V	$I_E=10\mu\text{A}, I_C=0$	6.0	---
Collector cut-off Current	$I_{CBO}$	nA	$V_{CB}=120\text{V}, I_E=0$	---	50
Emitter cut-off Current	$I_{EBO}$	nA	$V_{EB}=4\text{V}, I_C=0$	---	50
DC Current Gain	$h_{FE(1)}$		$I_C=1\text{mA}, V_{CE}=5.0\text{V}$	80	---
	$h_{FE(2)}$		$I_C=10\text{mA}, V_{CE}=5.0\text{V}$	100	300
	$h_{FE(3)}$		$I_C=50\text{mA}, V_{CE}=5.0\text{V}$	30	---
Collector-Emitter Saturation Voltage	$V_{CE(set)}$	V	$I_C=10\text{mA}, I_B=1.0\text{mA}$	---	0.15
			$I_C=50\text{mA}, I_B=5.0\text{mA}$	---	0.2
Base-Emitter Saturation Voltage	$V_{BE(set)}$	V	$I_C=10\text{mA}, I_B=1.0\text{mA}$	---	1.0
			$I_C=50\text{mA}, I_B=5.0\text{mA}$	0.6	1.0
Output Capacitance	$C_{ob}$	pF	$V_{CB}=10\text{V}, f=1.0\text{MHZ}, I_E=0$	---	6.0
Transition frequency	$f_T$	MHZ	$I_C=10\text{mA}, V_{CE}=10\text{V}$ $f=100\text{MHZ}$	100	300

Pulse test: pulse width $\leq 300\mu\text{s}$ , duty cycle $\leq 2.0\%$ .

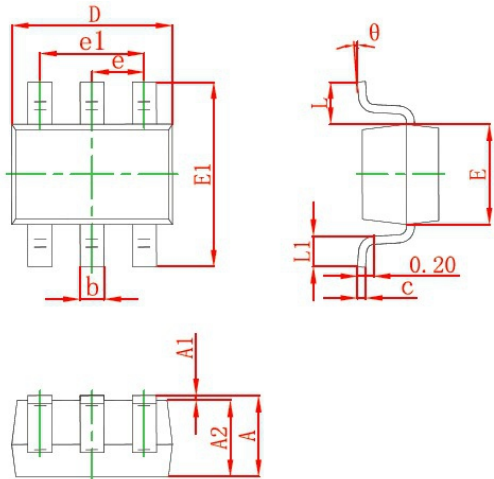
Characteristics(Typical)



# MMDT5551

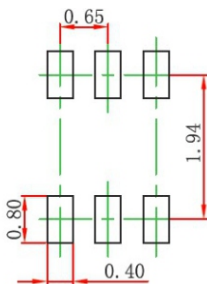


## Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
$\theta$	0 $^\circ$	8 $^\circ$

## Suggested pad layout



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

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