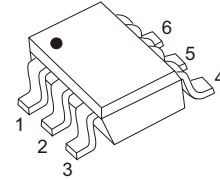


## FEATURES

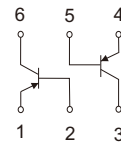
- Epitaxial planar die construction
- Ideal for low power amplification and switching
- High Stability and High Reliability

### SOT-363



## MECHANICAL DATA

- Case: SOT-363
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Marking: K2T



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

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	$V_{CE0}$	V	-40
Collector-Base Voltage	$V_{CB0}$	V	-40
Emitter-Base Voltage	$V_{EB0}$	V	-5.0
Collector Current, Continuous	$I_c$	mA	-600
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
Thermal resistance From junction to ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	625

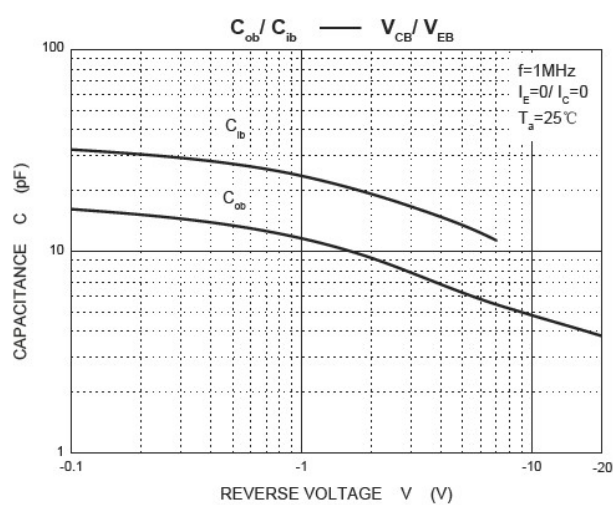
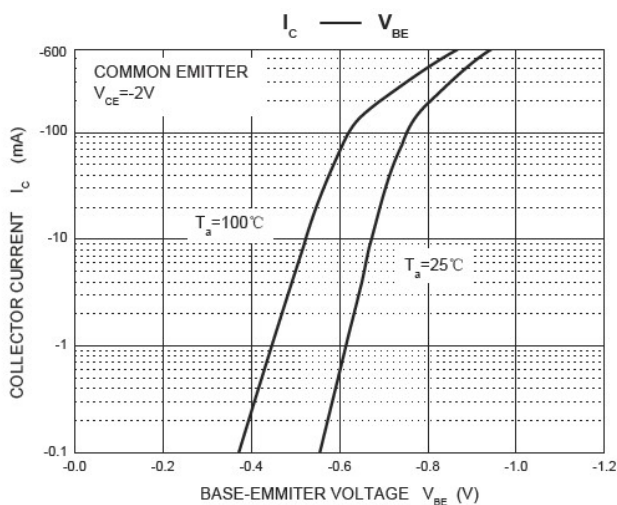
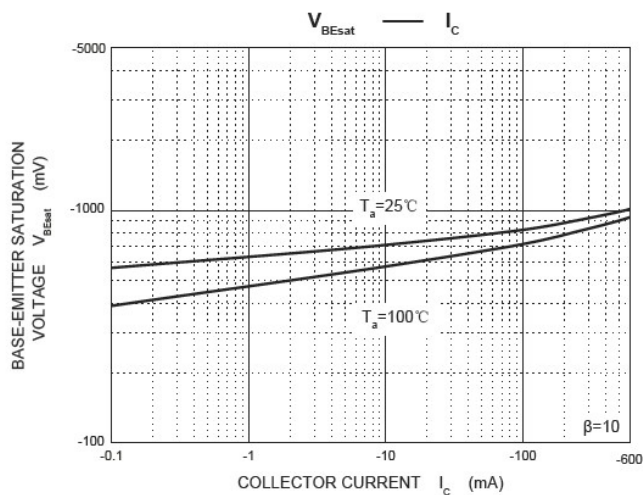
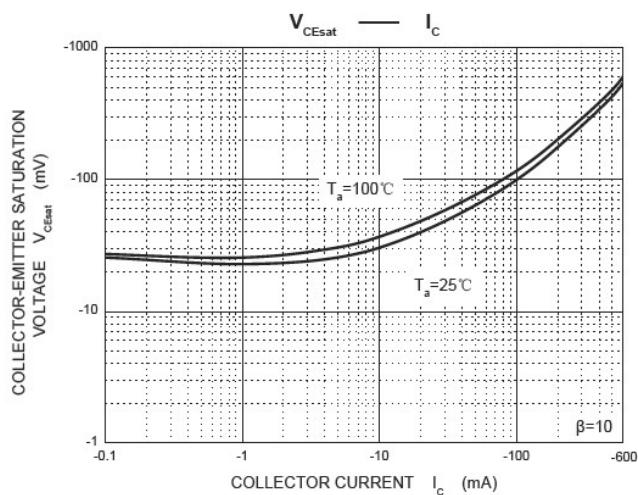
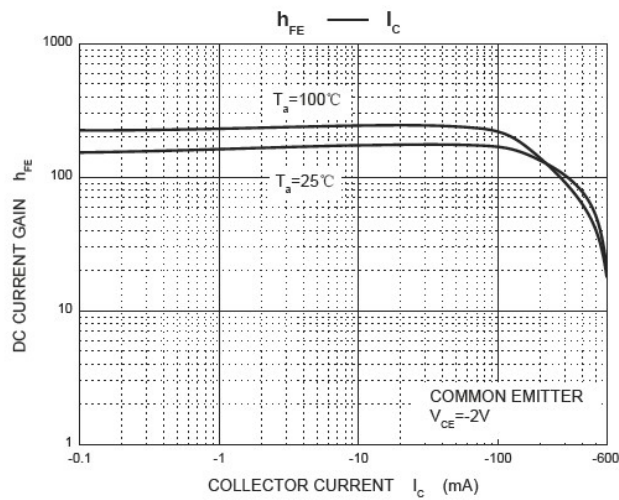
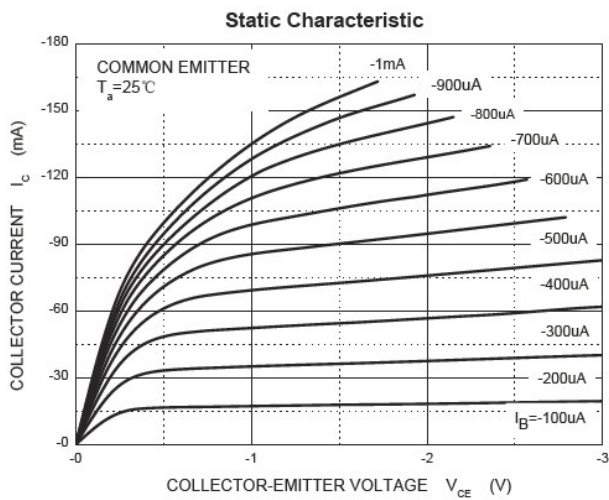
# MMDT4403

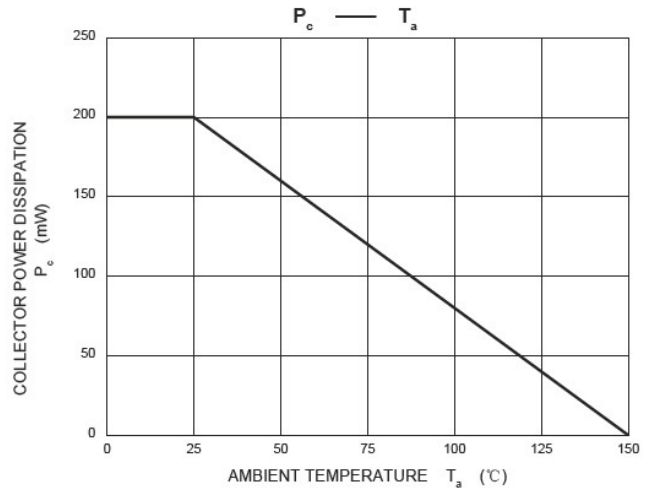
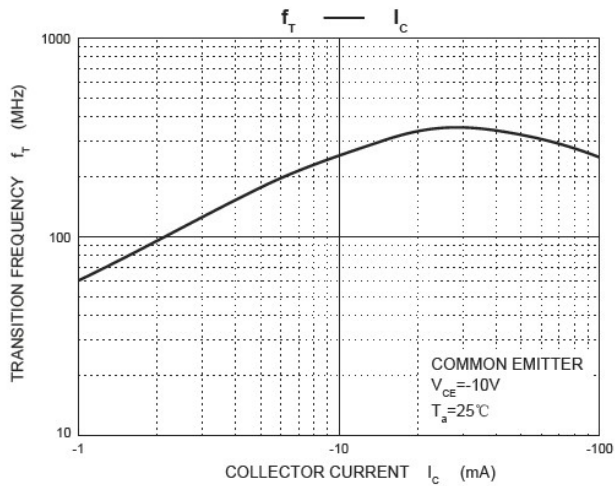
## ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	V	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-40	---
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	V	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-40	---
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	V	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	-5.0	---
Collector cut-off Current	I <sub>CBO</sub>	nA	V <sub>CB</sub> =-50V, I <sub>E</sub> =0	---	-100
Collector cut-off Current	I <sub>CEO</sub>	nA	V <sub>CE</sub> =-35V, I <sub>B</sub> =0	---	-500
Emitter cut-off Current	I <sub>EBO</sub>	nA	V <sub>EB</sub> =-5V, I <sub>C</sub> =0	---	-100
DC Current Gain	h <sub>FE(1)</sub>		I <sub>C</sub> =-0.1mA, V <sub>CE</sub> =-1V	30	---
	h <sub>FE(2)</sub>		I <sub>C</sub> =-1mA, V <sub>CE</sub> =-1V	60	---
	h <sub>FE(3)</sub>		I <sub>C</sub> =-10mA, V <sub>CE</sub> =-1V	100	---
	h <sub>FE(4)</sub>		I <sub>C</sub> =-150mA, V <sub>CE</sub> =-2V	100	300
	h <sub>FE(5)</sub>		I <sub>C</sub> =-500mA, V <sub>CE</sub> =-2V	20	---
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	V	I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA	---	-0.40
			I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA	---	-0.75
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	V	I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA	---	-0.95
			I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA	---	-1.30
Current Gain-Bandwidth Product	f <sub>T</sub>	MHz	I <sub>C</sub> =-20mA, V <sub>CE</sub> =-10V f=100MHz	200	---
Output Capacitance	C <sub>ob</sub>	pF	V <sub>CB</sub> =-10V, f=1.0MHz, I <sub>E</sub> =0	---	8.5
Delay time	t <sub>d</sub>	nS	V <sub>CC</sub> =-30V, V <sub>BE(off)</sub> =-2V, I <sub>C</sub> =-150mA, I <sub>B1</sub> =-15mA	---	15
Rise time	t <sub>r</sub>	nS		---	20
Storage time	t <sub>s</sub>	nS	V <sub>CC</sub> =-30V, I <sub>C</sub> =-150mA, I <sub>B1</sub> =I <sub>B2</sub> =-15mA	---	225
Fall time	t <sub>f</sub>	nS		---	30

Pulse test:pulse width≤300us,duty cycle≤2.0%

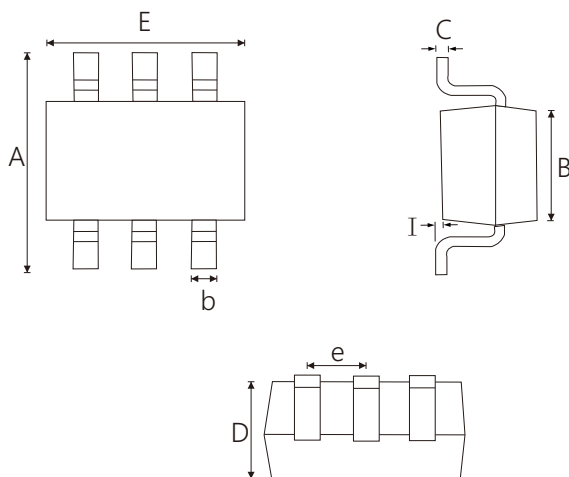
## Characteristics(Typical)





## Outline Dimensions

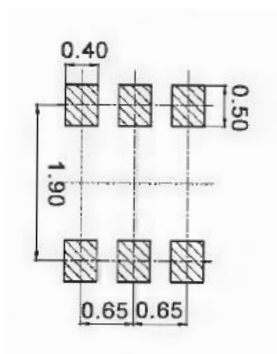
### SOT363



SOT363		
Dim	Min	Max
A	2.15	2.45
B	1.15	1.35
C	0.05	0.15
D	0.90	1.00
E	2.00	2.20
e	0.60	0.70
b	0.15	0.35
I	0.02	0.10

Dimensions in millimeters

## Suggested pad layout



Note:  
 1. Dimension: mm  
 2. General tolerance:  $\pm 0.05$  mm  
 3. The pad layout is for reference purposes only

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