



Micro Commercial Components



Micro Commercial Components  
130 W Cochran St, Unit B  
Simi Valley, CA 93065  
Tel:818-701-4933

## MMDT5551

### Plastic-Encapsulate Transistors

### Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Capable of 200mWatts of Power Dissipation
- Ideal for Medium Power Amplification and Switching
- Operating and Storage Junction Temperatures: -55°C to 150°C
- Marking:K4N

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=1\text{ mA}$ , $I_B=0$ )	160		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu\text{A}$ , $I_E=0$ )	180		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=10\mu\text{A}$ , $I_C=0$ )	6.0		Vdc
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=4\text{Vdc}$ , $I_C=0$ )		50	nAdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=120\text{Vdc}$ , $I_E=0$ )		50	nAdc
$I_C$	Collector Current-Continuous		200	mA
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient		625	K/W

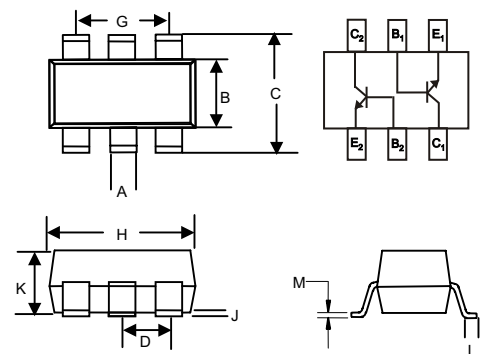
### ON CHARACTERISTICS

$h_{FE}$	DC Current Gain ( $I_C=1\text{mA}$ , $V_{CE}=5.0\text{Vdc}$ ) ( $I_C=10\text{mA}$ , $V_{CE}=5.0\text{Vdc}$ )	80 100	300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=10\text{mA}$ , $I_B=1.0\text{mA}$ )		0.15	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=10\text{mA}$ , $I_B=1.0\text{mA}$ )		1.0	Vdc

### SMALL-SIGNAL CHARACTERISTICS

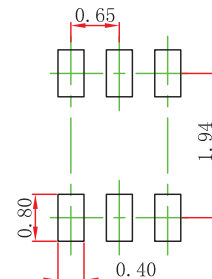
$f_T$	Current Gain-Bandwidth Product ( $I_C=10\text{mA}$ , $V_{CE}=20\text{Vdc}$ , $f=100\text{MHz}$ )	100	300	MHz
$C_{obo}$	Output Capacitance ( $V_{CB}=5.0\text{Vdec}$ , $I_E=0$ , $f=1.0\text{MHz}$ ) $R_g=1\text{kohm}$		6.0	pF
Noise figure	$V_{CE}=5.0\text{Vdec}$ , $I_C=200\mu\text{A}$ , $f=1.0\text{KHz}$		8.0	NF

### SOT-363



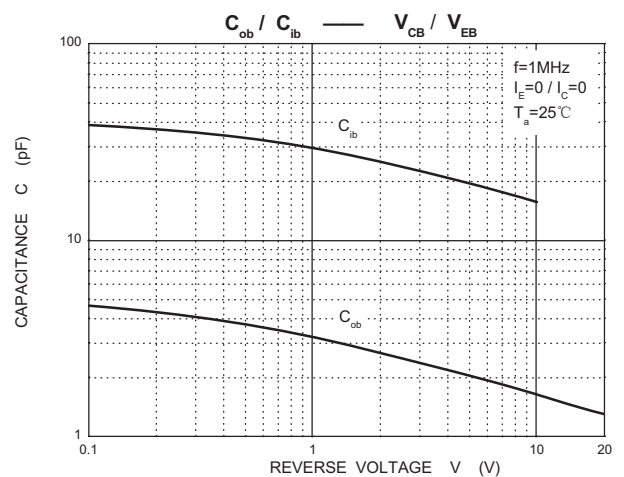
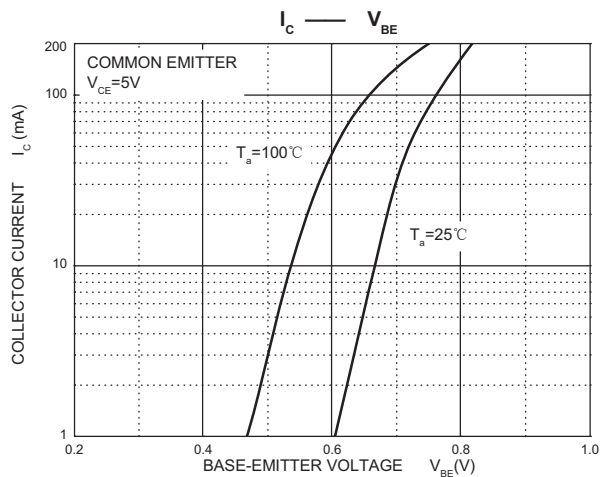
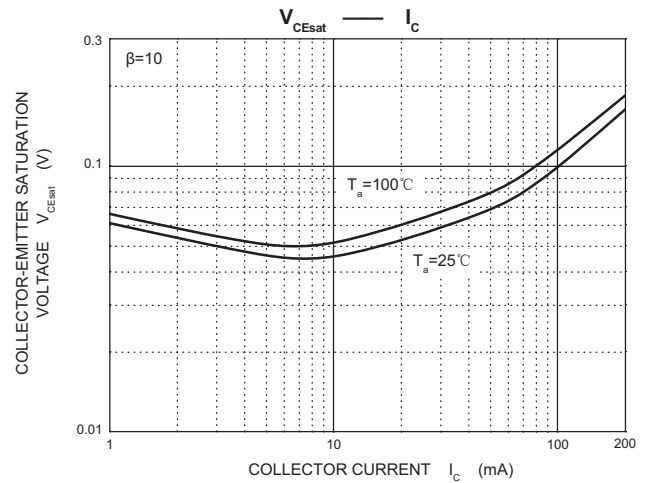
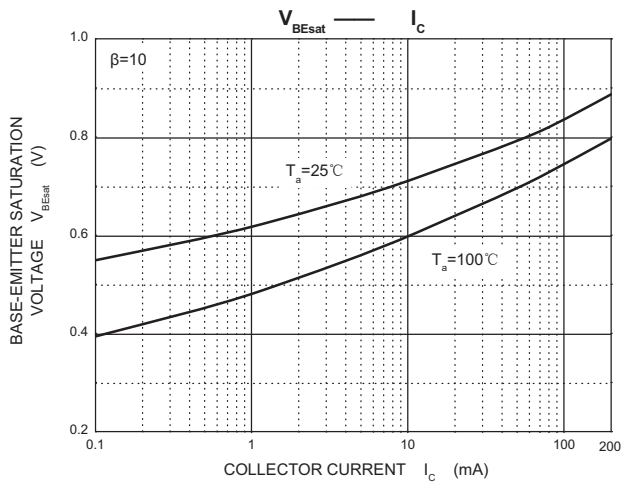
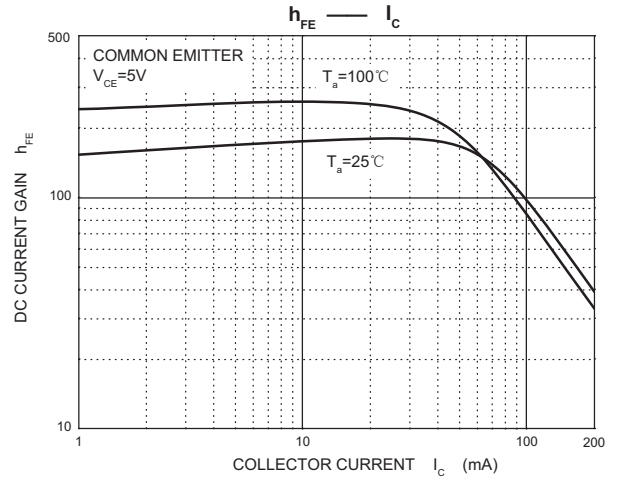
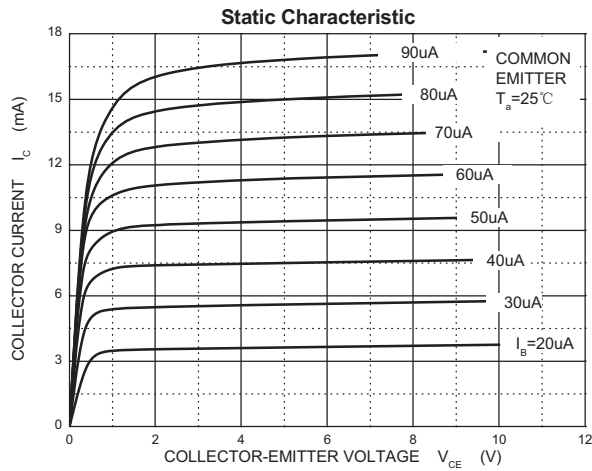
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026 Nominal		0.65 Nominal		
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	---	0.004	---	0.10	
K	0.035	0.043	0.90	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

### SUGGESTED SOLDER PAD LAYOUT



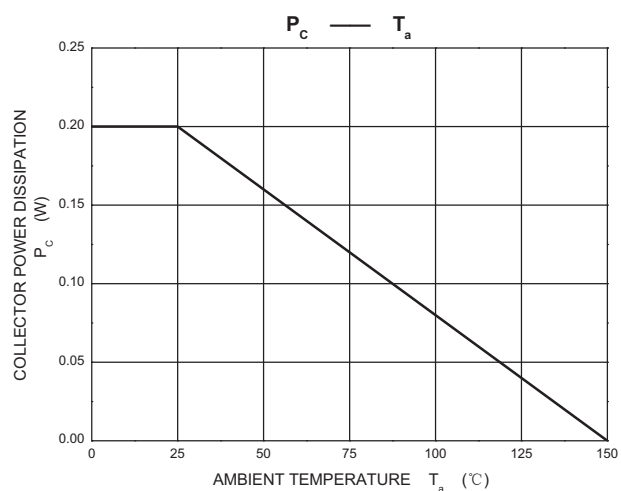


# Typical Characteristics





**MCC**  
Micro Commercial Components





## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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