



Micro Commercial Components

Micro Commercial Components  
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# MMDT5551

## Features

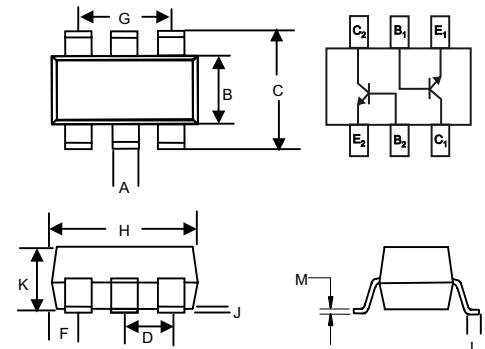
- Case Material: Molded Plastic. UL Flammability Classification Rating 94-0 and MSL Rating 1
- Marking: K4N
- Surface Mount SOT-363 Package
- Capable of 200mWatts of Power Dissipation
- Ideal for Medium Power Amplification and Switching
- Operating and Storage Junction Temperatures: -55°C to 150°C

## Plastic-Encapsulate Transistors

### 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

### SOT-363



### 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 80	250	
$V_{CE(sat)}$	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 ( $V_{CB}=5.0\text{Vdc}$ , $I_E=0$ , $f=1.0\text{MHz}$ )		6.0	pF
Noise figure	$R_g=1\text{kohm}$ $V_{CE}=5.0\text{Vdc}$ , $I_C=200\mu\text{A}$ , $f=1.0\text{KHz}$		8.0	NF

### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.004	.012	0.10	0.30	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026		0.65Nominal		
F	.012	.016	0.30	0.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.039	0.90	1.00	
L	.010	.016	0.25	0.40	
M	.004	.016	0.10	0.25	



TM

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## Ordering Information

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

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