



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Micro Commercial Components



Micro Commercial Components
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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 ($I_C=1\text{ mAdc}$, $I_B=0$) | 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 ($I_E=10\mu\text{Adc}$, $I_C=0$) | 6.0 | | Vdc |
| I_{EBO} | Emitter Cutoff Current ($V_{EB}=4\text{Vdc}$, $I_C=0$) | | 50 | nAdc |
| I_{CBO} | Collect 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 |

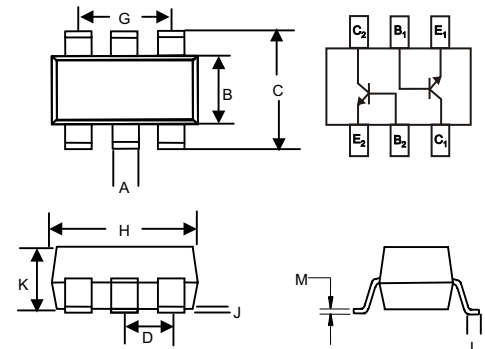
ON CHARACTERISTICS

| | | | | |
|---------------|---|----------|------|-----|
| h_{FE} | DC Current Gain* ($I_C=1\text{mAdc}$, $V_{CE}=5.0\text{Vdc}$) ($I_C=10\text{mAdc}$, $V_{CE}=5.0\text{Vdc}$) | 80 80 | 250 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage ($I_C=10\text{mAdc}$, $I_B=1.0\text{mAdc}$) | | 0.15 | Vdc |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage ($I_C=10\text{mAdc}$, $I_B=1.0\text{mAdc}$) | | 1.0 | Vdc |

SMALL-SIGNAL CHARACTERISTICS

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

SOT-363



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------------|------|------|
| | INCHES | | MM | | |
| A | .006 | .014 | 0.15 | 0.35 | |
| B | .045 | .053 | 1.15 | 1.35 | |
| C | .085 | .096 | 2.15 | 2.45 | |
| D | .026 | | 0.65Nominal | | |
| G | .047 | .055 | 1.20 | 1.40 | |
| H | .071 | .087 | 1.80 | 2.20 | |
| J | --- | .004 | --- | 0.10 | |
| K | .035 | .043 | 0.90 | 1.10 | |
| L | .010 | .018 | 0.26 | 0.46 | |
| M | .003 | .006 | 0.08 | 0.15 | |



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Ordering Information :

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

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

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