



Micro Commercial Components



Micro Commercial Components
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MMDT5551

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

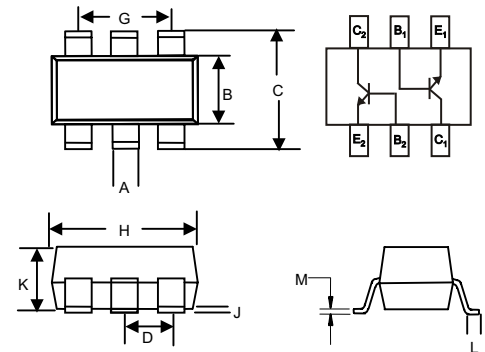
| | | | | |
|---------------|---|----------|------|-----|
| h_{FE} | DC Current Gain* ($I_C=1\text{mAdc}$, $V_{CE}=5.0\text{Vdc}$) ($I_C=10\text{mAdc}$, $V_{CE}=5.0\text{Vdc}$) | 80 80 | 250 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage ($I_C=10\text{mAdc}$, $I_B=1.0\text{mAdc}$) | | 0.15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

Plastic-Encapsulate Transistors

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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