

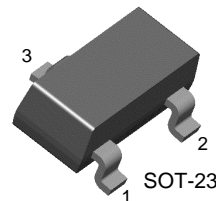


**THE DATASHEET OF  
KST2484MTF**



# KST2484

## Low Noise Transistor



1. Base 2. Emitter 3. Collector

## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

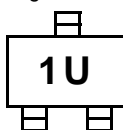
| Symbol    | Parameter                   | Value | Units            |
|-----------|-----------------------------|-------|------------------|
| $V_{CBO}$ | Collector Base Voltage      | 60    | V                |
| $V_{CEO}$ | Collector-Emitter Voltage   | 60    | V                |
| $V_{EBO}$ | Emitter-Base Voltage        | 6     | V                |
| $I_C$     | Collector Current           | 50    | mA               |
| $P_C$     | Collector Power Dissipation | 350   | mW               |
| $T_{STG}$ | Storage Temperature         | 150   | $^\circ\text{C}$ |

• Refer to KSP5088 for graphs

### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol        | Parameter                            | Test Condition   | Min. | Max. | Units |
|---------------|--------------------------------------|--|------|------|-------|
| $BV_{CBO}$    | Collector-Base Breakdown Voltage     | $I_C=10\mu\text{A}, I_E=0$   | 60   |      | V     |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage  | $I_C=10\text{mA}, I_B=0$   | 60   |      | V     |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage       | $I_E=10\mu\text{A}, I_C=0$   | 5    |      | V     |
| $I_{CBO}$     | Collector Cut-off Current            | $V_{CB}=45\text{V}, I_E=0$   |      | 10   | nA    |
| $I_{EBO}$     | Emitter Cut-off Current              | $V_{EB}=5\text{V}, I_C=0$  |      | 10   | nA    |
| $h_{FE}$      | DC Current Gain                      | $V_{CE}=5\text{V}, I_C=1\text{mA}$<br>$V_{CE}=5\text{V}, I_C=10\text{mA}$      | 250  | 800  |       |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=1\text{mA}, I_B=0.1\text{mA}$   |      | 0.35 | V     |
| $V_{BE(on)}$  | Base-Emitter On Voltage              | $I_C=1\text{mA}, V_{CE}=5\text{V}$   |      | 0.95 | V     |
| $C_{ob}$      | Output Capacitance                   | $V_{CB}=5.0\text{V}, I_E=0, f=1\text{MHz}$ ,                                   |      | 6    | pF    |
| NF            | Noise Figure                         | $I_C=10\mu\text{A}, V_{CE}=5\text{V}$<br>$R_S=10\text{K}\Omega, f=1\text{KHz}$ |      | 3    | dB    |

Marking



# Package Dimensions

## SOT-23



Dimensions in Millimeters

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