

**DRIVER STAGE AMPLIFIER APPLICATIONS.  
VOLTAGE AMPLIFIER APPLICATIONS.**

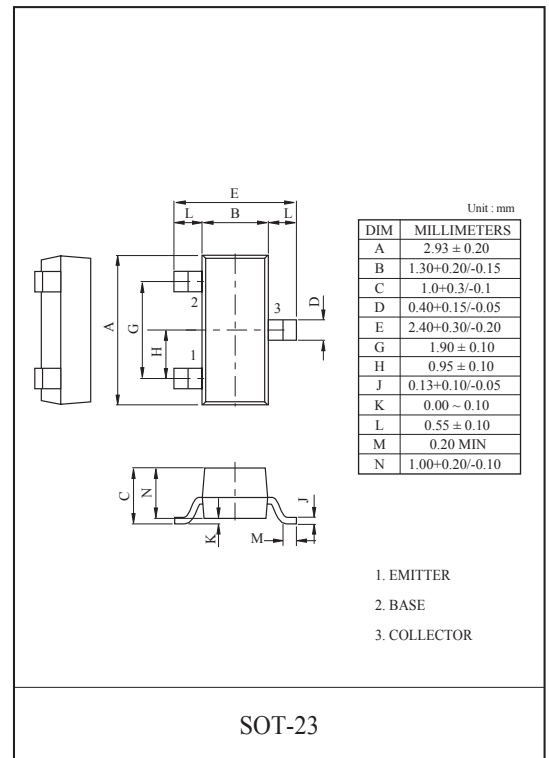
### FEATURES

- Complementary to MMBTA55.
- Driver Stage Application of 20 to 25 Watts Amplifiers.
- Suffix U : Qualified to AEC-Q101.  
ex) MMBTA05-RTK/HU

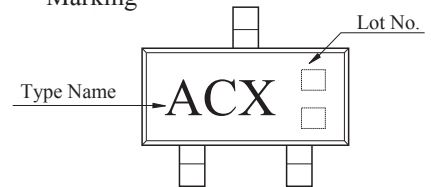
### MAXIMUM RATING (Ta=25°C)

| CHARACTERISTIC              | SYMBOL    | RATING    | UNIT |
|-----------------------------|-----------|-----------|------|
| Collector-Base Voltage      | $V_{CBO}$ | 60        | V    |
| Collector-Emitter Voltage   | $V_{CEO}$ | 60        | V    |
| Emitter-Base Voltage        | $V_{EBO}$ | 6         | V    |
| Collector Current           | $I_C$     | 500       | mA   |
| Emitter Current             | $I_E$     | -500      | mA   |
| Collector Power Dissipation | $P_C^*$   | 350       | mW   |
| Junction Temperature        | $T_j$     | 150       | °C   |
| Storage Temperature         | $T_{stg}$ | -55 ~ 150 | °C   |

\* : Package Mounted On 99.5% Alumina  $10 \times 8 \times 0.6$ mm.



### Marking



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION              | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|-----------------------------|------|------|------|------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB}=60V, I_E=0$         | -    | -    | 100  | nA   |
| Emitter Cut-off Current              | $I_{CEO}$     | $V_{CE}=60V, I_B=0$         | -    | -    | 100  | nA   |
| Collector-Emitter Breakdown Voltage  | $V_{(BR)CEO}$ | $I_C=5mA, I_B=0$            | 60   | -    | -    | V    |
| DC Current Gain                      | $h_{FE(1)}$   | $V_{CE}=1V, I_C=10mA$       | 100  | -    | -    |      |
|                                      | $h_{FE(2)}$   | $V_{CE}=1V, I_C=100mA$      | 100  | -    | -    |      |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100mA, I_B=10mA$       | -    | -    | 0.25 | V    |
| Base-Emitter Voltage                 | $V_{BE}$      | $V_{CE}=1V, I_C=100mA$      | -    | -    | 1.2  | V    |
| Transition Frequency                 | $f_T$         | $V_{CE}=1V, I_C=10mA$       | 80   | -    | -    | MHz  |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB}=10V, I_E=0, f=1MHz$ | -    | 10   | -    | pF   |

# MMBTA05

