

**isc Silicon NPN Power Transistor**
**KSC5026M**
**DESCRIPTION**

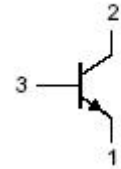
- Low Collector Saturation Voltage
- High breakdown voltage
- Small reverse transfer capacitance and excellent high frequency characteristic
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

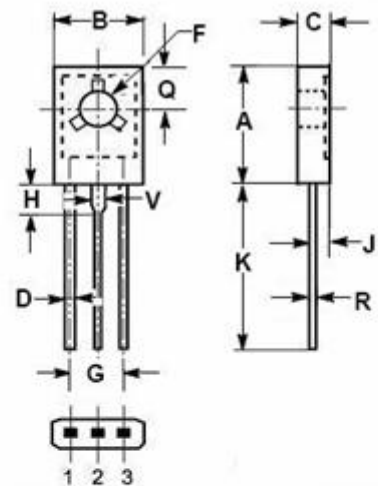
- For high definition CRT display ,video output

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

| SYMBOL    | PARAMETER                                               | VALUE   | UNIT             |
|-----------|---------------------------------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | 1100    | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | 800     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | 7       | V                |
| $I_C$     | Collector Current-Continuous                            | 1.5     | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_c=25^\circ\text{C}$ | 20      | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



PIN 1. EMITTER  
2. COLLECTOR  
3. BASE  
TO-126 package



| DIM | mm    |       |
|-----|-------|-------|
|     | MIN   | MAX   |
| A   | 10.70 | 10.95 |
| B   | 7.70  | 7.90  |
| C   | 2.60  | 2.80  |
| D   | 0.66  | 0.86  |
| F   | 3.10  | 3.30  |
| G   | 4.48  | 4.68  |
| H   | 2.00  | 2.20  |
| J   | 1.35  | 1.55  |
| K   | 15.30 | 16.30 |
| Q   | 3.70  | 3.90  |
| R   | 0.40  | 0.60  |
| V   | 1.17  | 1.37  |

## isc Silicon NPN Power Transistor

## KSC5026M

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

| SYMBOL               | PARAMETER                            | CONDITIONS                                     | MIN  | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|------------------------------------------------|------|------|-----|------|
| V <sub>(BR)CBO</sub> | Collector-Base breakdown voltage     | I <sub>C</sub> =1mA ; I <sub>B</sub> =0        | 1100 |      |     | V    |
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | I <sub>C</sub> =5mA ; I <sub>B</sub> =0        | 800  |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       | I <sub>E</sub> =1mA ; I <sub>C</sub> =0        | 5    |      |     | V    |
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> =750mA; I <sub>B</sub> = 150mA  |      |      | 2.0 | V    |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> =750mA; I <sub>B</sub> = 150mA  |      |      | 1.5 | V    |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> =800V ; I <sub>E</sub> = 0     |      |      | 10  | μ A  |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> = 5V; I <sub>C</sub> = 0       |      |      | 10  | μ A  |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> = 100mA ; V <sub>CE</sub> =5V   | 10   |      | 40  |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> = 500mA ; V <sub>CE</sub> =5V   | 8    |      |     |      |
| f <sub>T</sub>       | Current-Gain—Bandwidth Product       | I <sub>E</sub> = -100mA; V <sub>CE</sub> = 10V |      | 15   |     | MHz  |

◆ h<sub>FE</sub> Classifications

| N     | R     | O     |
|-------|-------|-------|
| 10-20 | 15-30 | 20-40 |



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