

isc Silicon PNP Power Transistors

MJD32C

DESCRIPTION

- DC Current Gain $-h_{FE} = 25(\text{Min})@ I_C = -1\text{A}$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -100\text{V}(\text{Min})$
- Complement to Type MJD31C
- DPAK for Surface Mount Applications
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

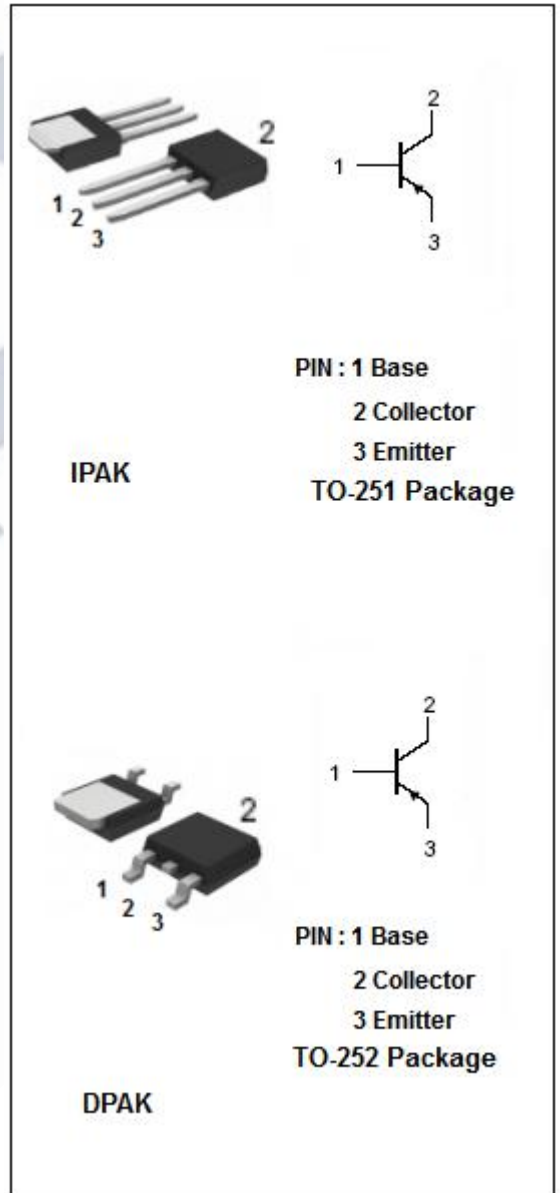
- Designed for use in general purpose amplifier and low speed switching applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -100 | V |
| V_{CEO} | Collector-Emitter Voltage | -100 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -3 | A |
| I_{CM} | Collector Current-Pulse | -5 | A |
| I_B | Base Current | -1 | A |
| P_C | Collector Power Dissipation $T_c=25^\circ\text{C}$ | 15 | W |
| | Collector Power Dissipation $T_a=25^\circ\text{C}$ | 1.56 | |
| T_j | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|---|-----|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 8.3 | $^\circ\text{C/W}$ |
| $R_{th\ j-a}$ | Thermal Resistance, Junction to Ambient | 80 | $^\circ\text{C/W}$ |



isc Silicon PNP Power Transistors**MJD32C****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------|--------------------------------------|--|------|------|---------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C = -30\text{mA}; I_B = 0$ | -100 | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -3\text{A}; I_B = -0.375\text{A}$ | | -1.2 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C = -3\text{A}; V_{CE} = -4\text{V}$ | | -1.8 | V |
| I_{CES} | Collector Cutoff Current | $V_{CE} = -100\text{V}; V_{EB} = 0$ | | -20 | μA |
| I_{CEO} | Collector Cutoff Current | $V_{CE} = -60\text{V}; I_B = 0$ | | -50 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = -5\text{V}; I_C = 0$ | | -1.0 | mA |
| h_{FE-1} | DC Current Gain | $I_C = -1\text{A}; V_{CE} = -4\text{V}$ | 25 | | |
| h_{FE-2} | DC Current Gain | $I_C = -3\text{A}; V_{CE} = -4\text{V}$ | 10 | 50 | |
| f_T | Current-Gain—Bandwidth Product | $I_C = -0.5\text{A}; V_{CE} = -10\text{V}$ | 3 | | MHz |

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Outline Drawing

