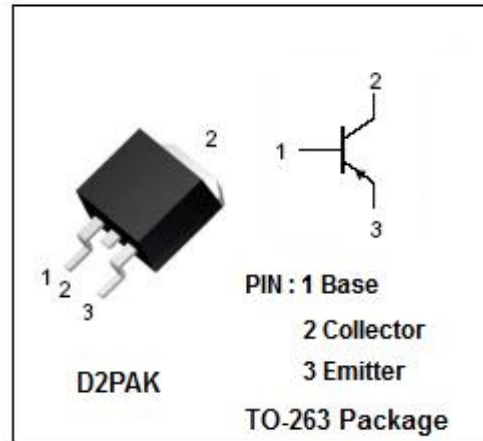


isc Silicon PNP Power Transistor
MJB45H11
DESCRIPTION

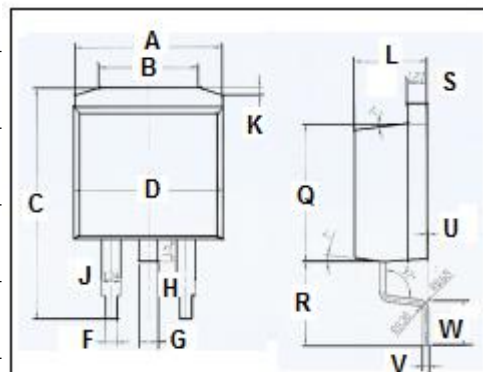
- Low Collector-Emitter saturation voltage
- Pb-free package are available
- Fast switching speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- General purpose amplification and switching such as out or driver stages in applications such as switching regulators, converters and power amplifiers


ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|---|---------|------|
| V _{CEO} | Collector-Emitter Voltage | -80 | V |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| I _C | Collector Current-Continuous | -10 | A |
| I _{CP} | Collector Current-Pulse | -20 | A |
| P _C | Total Power Dissipation @ T _a =25°C | 2 | W |
| P _C | Total Power Dissipation @ T _C =25°C | 50 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature Range | -55~150 | °C |



| DIM | mm | |
|-----|-------|-------|
| | MIN | MAX |
| A | 10 | |
| B | 6.6 | 6.8 |
| C | 15.23 | 15.25 |
| D | 10.15 | 10.17 |
| F | 0.76 | 0.78 |
| G | 1.26 | 1.28 |
| H | 1.4 | 1.6 |
| J | 1.33 | 1.35 |
| K | 0.4 | 0.6 |
| L | 4.6 | 4.8 |
| Q | 8.69 | 8.71 |
| R | 5.28 | 5.30 |
| S | 1.26 | 1.28 |
| U | 0.0 | 0.2 |
| V | 0.37 | 0.39 |
| W | 2.80 | 2.82 |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|--------------------------------------|-----|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 2.5 | °C/W |

isc Silicon PNP Power Transistor**MJB45H11****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|-----|------|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C =-30mA; I _B =0 | -80 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C =-8A; I _B =-400mA | | | -1.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C =-8A; I _B =-800mA | | | -1.5 | V |
| I _{CEO} | Collector Cutoff Current | V _{CE} =-80V; I _E =0 | | | -10 | uA |
| I _{EBO} | Emitter Cutoff Current | V _{EB} =-5V; I _C =0 | | | -50 | uA |
| h _{FE1} | DC Current Gain | I _C =-2A; V _{CE} =-1V | 60 | | | |
| h _{FE2} | DC Current Gain | I _C =-4A; V _{CE} =-1V | 40 | | | |
| f _T | Current-Gain—Bandwidth Product | I _C =-0.5A; V _{CE} =-10V | | 40 | | MHz |
| C _{OB} | Output Capacitance | I _E =0; V _{CB} =-10V; f=1.0MHz | | 230 | | pF |

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