

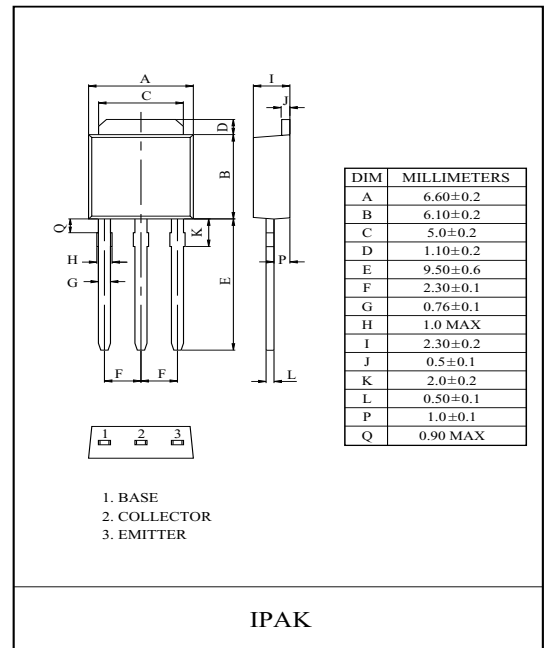
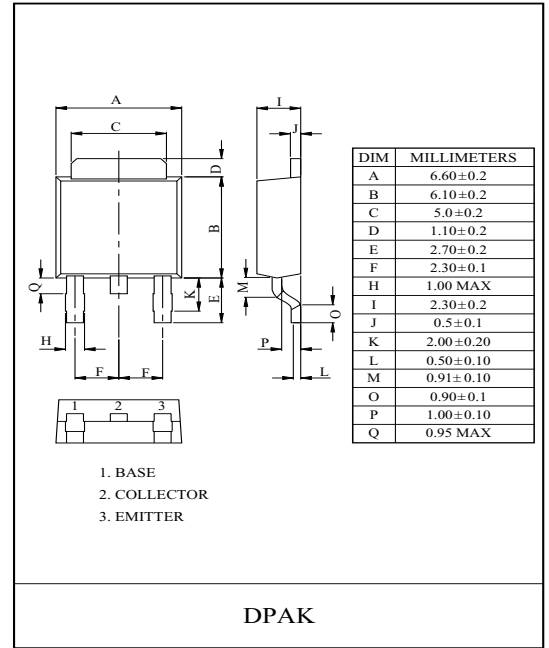
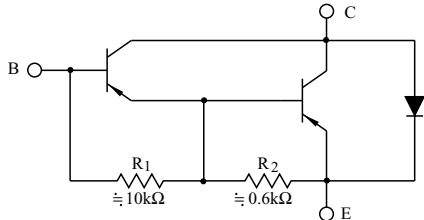
MONOLITHIC CONSTRUCTION WITH BUILT IN
BASE-EMITTER SHUNT RESISTORS INDUSTRIAL USE.

FEATURES

- High DC Current Gain.
: $h_{FE}=1000(\text{Min.}), @V_{CE}=-4V, I_C=-1A.$
- Low Collector-Emitter Saturation Voltage.
- Straight Lead (IPAK, "L" Suffix)
- Complementary to MJD112/L.

MAXIMUM RATING (Ta=25)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|-------|-----------|---------|------|
| Collector-Base Voltage | | V_{CBO} | -100 | V |
| Collector-Emitter Voltage | | V_{CEO} | -100 | V |
| Emitter-Base Voltage | | V_{EBO} | -5 | V |
| Collector Current | DC | I_C | -2 | A |
| | Pulse | | -4 | |
| Base Current | DC | I_B | -50 | mA |
| Collector Power Dissipation | Ta=25 | P_C | 1.0 | W |
| | Tc=25 | | 20 | |
| Junction Temperature | | T_j | 150 | |
| Storage Temperature Range | | T_{stg} | -55 150 | |

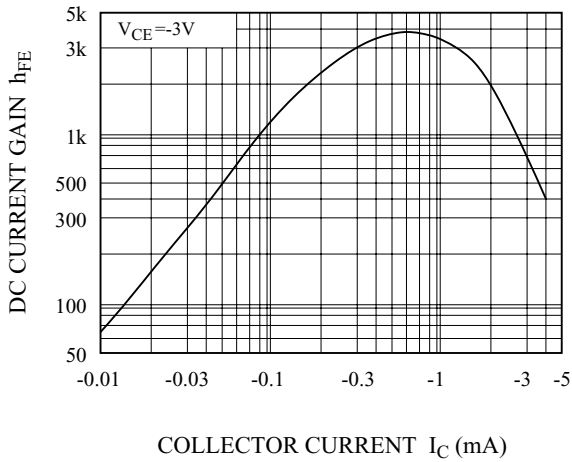


ELECTRICAL CHARACTERISTICS (Ta=25)

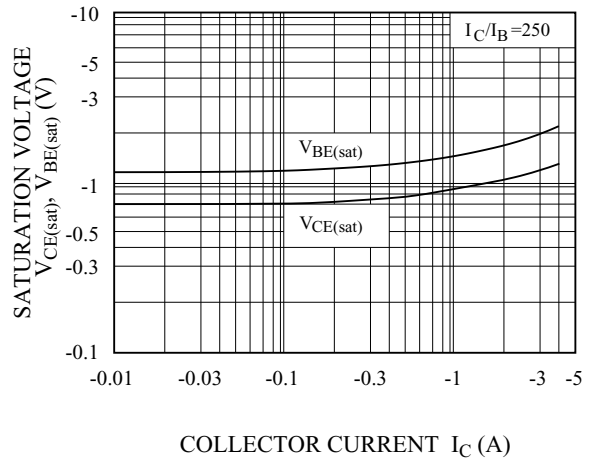
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|----------------|----------------------------------|-------|--------|------|---------|
| Collector-Emitter Sustaining Voltage | $V_{CEO(SUS)}$ | $I_C=-30mA, I_B=0$ | -100 | - | - | V |
| Collector Cut-off Current | I_{CEO} | $V_{CE}=-50V, I_B=0$ | - | - | -20 | μA |
| | I_{CBO} | $V_{CB}=-100V, I_E=0$ | - | - | -20 | |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=-5V, I_C=0$ | - | - | -2 | mA |
| DC Current Gain | h_{FE} | $V_{CE}=-3V, I_C=-0.5A$ | 500 | - | - | |
| | | $V_{CE}=-3V, I_C=-2A$ | 1,000 | 12,000 | - | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-2A, I_B=-8mA$ | - | - | -2.0 | V |
| Base-Emitter On Voltage | $V_{BE(ON)}$ | $V_{CE}=-3V, I_C=-2A$ | - | - | -2.8 | V |
| Current Gain Bandwidth Product | f_T | $V_{CE}=-10V, I_C=0.75A, f=1MHz$ | 25 | - | - | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=-10V, I_E=0, f=0.1MHz$ | - | - | 200 | pF |

MJD117/L

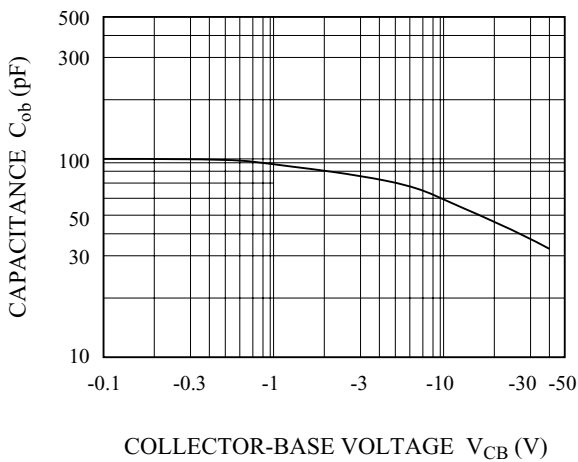
$h_{FE} - I_C$



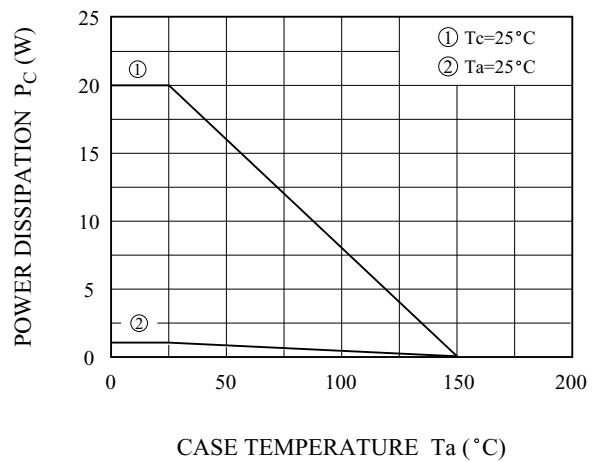
$V_{CE(sat)}, V_{BE(sat)} - I_C$



$C_{ob} - V_{CB}$



$P_C - T_a$



SAFE OPERATING AREA

