# BUV20,BUV21,BUV22,BUV23,BUV24

## NPN Silicon Low Frequency High Power Switching Transistor

**Features:**

1. Heavy working current.Good temperature stability.Excellent thermal fatigue capability.
2. Good Switching Characteristic.
3. Implementation of standards: GJB33 A-97, QZJ840611A, QZJ840611
4. Use for Low-speed switch,low frequency power amplify,power adjustment.
5. Quality Class: JP, JT, JCT, GS, G, G+

**TECHNICAL DATA:** **(Ta = 25°C )**

| Parameter name | Symbols | Unit | Specifications | | | | |
|---|---|---|---|---|---|---|---|
| | | | BUV20 | BUV21 | BUV22 | BUV23 | BUV24 |
| Total Dissipation (Tc=25°C) | $P_{tot}$ | W | 250 | | | | |
| Max. Collector Current | $I_{CM}$ | A | 50 | 40 | 40 | 30 | 20 |
| Junction Temperature | $T_{jm}$ | °C | 175 | | | | |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | V | ≥160 | ≥250 | ≥300 | ≥400 | ≥450 |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | V | ≥125 | ≥200 | ≥250 | ≥325 | ≥400 |
| | | | $I_C$=10mA | | | | |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | V | ≥7 | | | | |
| | | | $I_E$=1mA | | | | |
| Collector- Emitter Saturation Voltage Drop | $V_{CE(sat)}$ | V | ≤1.2 (50A, 5A) | ≤1.5 (25A, 3A) | ≤1.5 (20A, 2.5A) | ≤0.8 (8A, 1.6A) | ≤0.6 (6A, 1.2A) |
| Collector-Emitter Laekage Current | $I_{CEO}$ | mA | ≤3.0 | | | | |
| | | | $V_{CE}$=100V | $V_{CE}$=160V | $V_{CE}$=200V | $V_{CE}$=250V | $V_{CE}$=300V |
| Emitter-Base Laekage Current | $I_{EBO}$ | mA | ≤1.0 ($V_{EB}$=7V) | | | | |
| DC Current Gain | $h_{FE}$ | | 20~60 | | | 15~60 | |
| $V_{CE}$=, $I_C$= | | | 2V, 25A | 2V, 12A | 4V, 10A | 4V, 8A | 4V, 6A |
| Transition frequency | $f_T$ | MHz | ≥8 ($V_{CE}$= 15V, $I_C$=2A,f=4MHz) | | | | |
| Rise Time ($V_{CE}$= $I_C$= $I_{B1}$= $I_{B2}$=) | $t_r$ | us | ≤1.5 (30V, 50A, 5A, -5A) | ≤1.2 (100V, 25A, 3A, -3A) | ≤1.3 (100V, 20A, 2.5A, -2.5A) | ≤0.8 (100V, 16A, 3.2A, -3.2A) | ≤1.6 (120V, 12A, 2.4A, -2.4A) |
| Storage Time | $t_s$ | us | ≤1.2 | ≤1.8 | ≤2.5 | ≤2.5 | ≤2.3 |
| Fall Time | $t_f$ | us | ≤0.3 | ≤0.4 | ≤0.5 | ≤1.0 | ≤1.4 |

**Outline and Dimensions:**



Contact: Jandy Lei Tel.: 13991730782 QQ: 1142478250 sxqlljd@hotmail.com