

N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

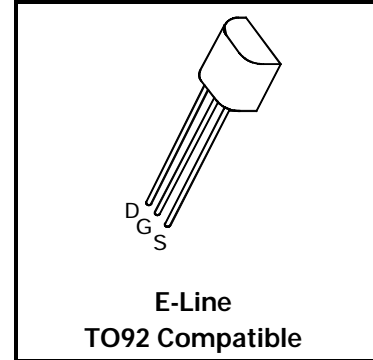
BS107P

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FEATURES

- * 200 Volt V_{DS}
- * $R_{DS(on)}=23\Omega$

REFER TO BS107PT FOR GRAPHS



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|---------------|-------------|-------------|
| Drain-Source Voltage | V_{DS} | 200 | V |
| Continuous Drain Current at $T_{amb}=25^{\circ}C$ | I_D | 0.12 | A |
| Pulsed Drain Current | I_{DM} | 2 | A |
| Gate-Source Voltage | V_{GS} | ± 20 | V |
| Power Dissipation at $T_{amb}=25^{\circ}C$ | P_{tot} | 500 | mW |
| Operating and Storage Temperature Range | $T_j:T_{stg}$ | -55 to +150 | $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$)

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---|--------------|------|------|----------|----------------------|---|
| Drain-Source Breakdown Voltage | BV_{DSS} | 200 | 230 | | V | $I_D=100\mu A, V_{GS}=0V$ |
| Gate Body Leakage | I_{GSS} | | | 10 | nA | $V_{GS}=15V, V_{DS}=0V$ |
| Drain Cut-Off Current | I_{DSS} | | | 30 | nA | $V_{GS}=0V, V_{DS}=130V$ |
| Drain Cut-Off Current | I_{DSX} | | | 1 | μA | $V_{GS}=0.2V, V_{DS}=70V$ |
| Static Drain-Source on-State Resistance | $R_{DS(on)}$ | | 15 | 23 30 | Ω Ω | $V_{GS}=2.6V, I_D=25mA^*$ $V_{GS}=5V, I_D=100mA^*$ |

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$