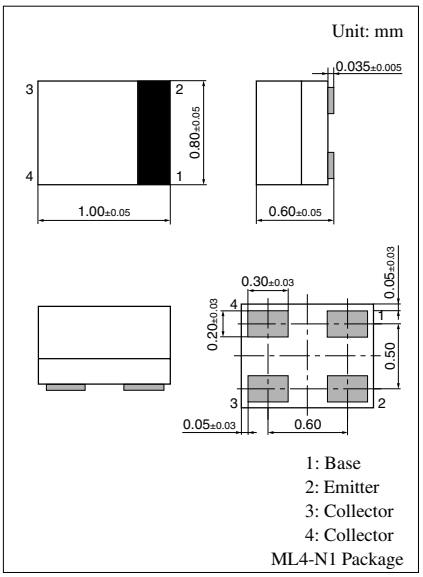
# 2SD2216L

## Silicon NPN epitaxial planer type

For general amplification
Complementary to 2SB1462L




Marking Symbol: L

### ■ Features

- High foward current transfer ratio $h_{FE}$
- Mold leadless type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

### ■ Absolute Maximum Ratings $T_a = 25°C$

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to base voltage | $V_{CBO}$ | 60 | V |
| Collector to emitter voltage | $V_{CEO}$ | 50 | V |
| Emitter to base voltage | $V_{EBO}$ | 7 | V |
| Peak collector current | $I_{CP}$ | 200 | mA |
| Collector current | $I_C$ | 100 | mA |
| Collector power dissipation * | $P_C$ | 150 | mW |
| Junction temperature | $T_j$ | 125 | °C |
| Storage temperature | $T_{stg}$ | −55 to +125 | °C |

Note) *: Printed circuit board copper foil for collector portion area: 20.0 $mm^2$ or more, thickness: 1.6 mm

### ■ Electrical Characteristics $T_a = 25°C \pm 3°C$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector cutoff current | $I_{CBO}$ | $V_{CB}$ = 20 V, $I_E$ = 0 | | | 0.1 | µA |
| | $I_{CEO}$ | $V_{CE}$ = 10 V, $I_B$ = 0 | | | 100 | µA |
| Collector to base voltage | $V_{CBO}$ | $I_C$ = 10 µA, $I_E$ = 0 | 60 | | | V |
| Collector to emitter voltage | $V_{CEO}$ | $I_C$ = 2 mA, $I_B$ = 0 | 50 | | | V |
| Emitter to base voltage | $V_{EBO}$ | $I_E$ = 10 µA, $I_C$ = 0 | 7 | | | V |
| Forward current transfer ratio | $h_{FE1}$ | $V_{CE}$ = 10 V, $I_C$ = 2 mA | 180 | | 390 | |
| | $h_{FE2}$ | $V_{CE}$ = 2 V, $I_C$ = 100 mA | 90 | | | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C$ = 100 mA, $I_B$ = 10 mA | | 0.1 | 0.3 | V |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$ = 10 V, $I_E$ = 0, f = 1 MHz | | 3.5 | | pF |
| Transition frequency | $f_T$ | $V_{CB}$ = 10 V, $I_E$ = −2 mA, f = 200 MHz | | 80 | | MHz |