# Technical Data
# TRANSISTOR

DISCRETE SEMICONDUCTOR INDUSTRIES

## maximum ratings

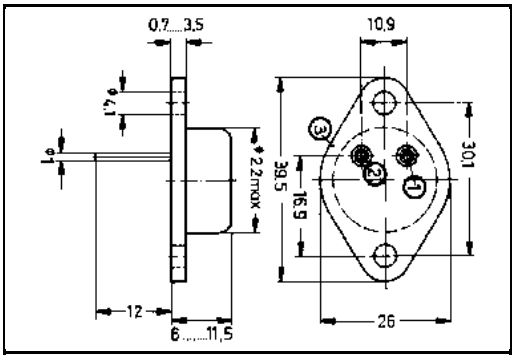
| | | | | |
|---|---|---|---|---|
| Voltage, Collector to Base (VCBO) | 120.0 | V | NO. | BDX67B |
| Voltage, Collector to Emitter (VCE) | 100.0 | V | TYPE | NPN-DARLINGTON |
| Voltage, Emitter to Base (VEBO) | 5.0 | V | | |
| Collector Current (IC) | 16.0 | A | | |
| Base Current (IB) | 0.25 | A | CASE | TO-3 |
| Max. Power Dissipation (PT) at TC = 25.0 °C | 150.0 | W | | |
| Max. Thermal Resistance (Rth J-C) | 1.17 | °C/W | | |
| Max. Junction Temperature (TJ) | 200.0 | °C | | |

## PERFORMANCE CHARACTERISTICS at $T_C$ = 25°C, unless otherwise noted

| NO. | SYMBOL | CONDITIONS | | MIN. | MAX. | UNITS |
|---|---|---|---|---|---|---|
| 1. | BVCEO | IC = 100.0 mA | (1) | 100.0 | - | V |
| 2. | ICBO | VCB = 100.0 V | | - | 1.0 | mA |
| 3. | ICBO | VCB = 100.0 V, TJ = 200.0° C | | - | 5.0 | mA |
| 4. | ICEO | VCE = 50.0 V | | - | 3.0 | mA |
| 5. | IEBO | VEB = 5.0 V | | - | 5.0 | mA |
| 6. | hFE | IC = 10.0 A, VCE = 3.0 V | (1) | 1k | - | - |
| 7. | hFE | IC = 16.0 A, VCE = 3.0 V | (2) | 750.0 | - | - |
| 8. | VCE(SAT) | IC = 10.0 A, IB = 40.0 mA | (1) | - | 2.0 | V |
| 9. | VBE(ON) | IC = 10.0 A, VCE = 3.0 V | (1) | - | 2.5 | V |
| 10. | fT | IC = 5.0 A, VCE = 3.0 V | (3) | 7.0 | - | MHz |
| 11. | Cobo | VCB = 10.0 V, f = 1.0 MHz | (3) | - | 300.0 | pF |
| 12. | VFD | IF = 10.0 A | (3) | - | 2.5 | V |
| 13. | | | | | | |
| 14. | | | | | | |
| 15. | | | | | | |
| 16. | | | | | | |
| 17. | | | | | | |
| 18. | | | | | | |
| 19. | | | | | | |
| 20. | | | | | | |

Notes
(1)pulse-tested tp ≤ 300 µs, duty cycle ≤ 2 %
(2)typ. value / pulse-tested tp≤300µs, duty cycle ≤2%
(3)typical value

DIMENSIONS
in mm




Marking BDX67B
Customer GENERAL PURPOSE