PPC, Inc.
Microsemi
Progress Powered by Technology

# 2N3740A

## ELECTRICAL CHARACTERISTICS:
## (25°Case Temperature Unless Otherwise Noted)

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | VALUE | | Units |
|---|---|---|---|---|---|
| | | | Min. | Max. | |
| $V_{CEO(sus)}$* | Collector-Emitter Sustaining Voltage | $I_C$ = 100 mAdc, $I_B$ = 0 (Note 1) | 60 | ---- | Vdc |
| $I_{EB0}$* | Emitter Base Cutoff Current | $V_{EB}$ = 7.0 Vdc | ---- | 100 | nAdc |
| $I_{CEX}$* | Collector Cutoff Current | $V_{CE}$ = 60 Vdc, $V_{BE(off)}$ = 1.5 Vdc | ---- | 100 | nAdc |
| | | $V_{CE}$ = 40 Vdc, $V_{BE(off)}$ = 1.5 Vdc, $T_C$ = 150°C | ---- | 0.5 | mAdc |
| $I_{CEO}$* | Collector-Emitter Cutoff Current | $V_{CE}$ = 40 Vdc, $I_B$ = 0 | ---- | 1.0 | µAdc |
| $I_{CBO}$* | Collector Base Cutoff Current | $V_{CB}$ = 60 Vdc, $I_E$ = 0 | ---- | 100 | nAdc |
| $h_{FE}$* | DC Current Gain (Note 1) | $I_C$ = 100 mAdc, $V_{CE}$ = 1.0 Vdc | 40 | ---- | ---- |
| | | $I_C$ = 250 mAdc, $V_{CE}$ = 1.0 Vdc | 30 | 100 | ---- |
| | | $I_C$ = 500 mAdc, $V_{CE}$ = 1.0 Vdc | 20 | ---- | ---- |
| | | $I_C$ = 1.0 Adc, $V_{CE}$ = 1.0 Vdc | 10 | ---- | ---- |
| $V_{CE(sat)}$* | Collector-Emitter Saturation Voltage (Note 1) | $I_C$ = 1.0 Adc, $I_B$ = 125 mAdc | ---- | 0.6 | Vdc |
| $V_{BE}$* | Base-Emitter Voltage (Note 1) | $I_C$ = 250 mAdc, $V_{CE}$ = 1.0 Vdc | ---- | 1.0 | Vdc |
| $f_T$* | Current Gain Bandwidth Product | $I_C$ = 100 mAdc, $V_{CE}$ = 10 Vdc, f = 1.0 MHz | 3.0 | ---- | MHz |
| $h_{fe}$* | Small-Signal Current Gain | $I_C$ = 50 mAdc, $V_{CE}$ = 10 Vdc, f = 1.0 kHz | 25 | ---- | ---- |
| $C_{ob}$* | Common Base Output Capacitance | $V_{CB}$ = 10 Vdc, $I_C$ = 0, f = 100 kHz | ---- | 100 | pF |

**Note 1: Pulse Test: PW ≤ 300µs, Duty Cycle ≤ 2.0%**

*** Indicates JEDEC registered data.**

## PACKAGE MECHANICAL DATA: