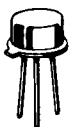
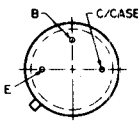
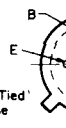
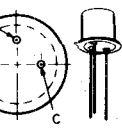

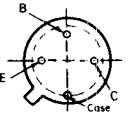








Silicon Small Signal Transistors

(By Case Style and Increasing BVCEO) Maximum Ratings at $T_C = 25^\circ\text{C}$

| Breakdown Voltage | | Type | | Application | Collector Current I_C (A) | Collector Diss. PD (W) | Current Gain hFE | Freq in MHz ft | Package | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---------|---------|---------|--|-----------------------------|--|------------------|----------------|--|--|---|---|---|----|---|---|---|----|---|---|---|----|---|---|---|----|---|---|---|----|---|---|---|-----|---|---|---|-----|---|---|---|------|---|---|---|------|---|---|---|
| BVCBO | BVCEO | NPN | PNP | | | | | | Case/Basing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 20 | ECG346 | --- | Gen Purp-Hi Freq, Driver | .4 | 1 | 10 min | 500 | TO-39   | Fig. T6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 30 | ECG278 | --- | Gen Purp-Hi Freq, Amp | .4 | 3.5 | 30 min | 1200 min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 30 | ECG77 | --- | CATV Broadband Amp | .4 | 3.5 | 30 min | 1800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | 30 | ECG311 | --- | Gen Purp-Hi Freq | .4 | 5 | 25 min | 800 min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 30 | ECG123 | --- | Gen Purp, Amp, Driver | .8 | .8 | 150 typ | 250 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 30 | ECG329 | --- | RF Pwr Amp | 1.5 peak | 5 | --- | --- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70 | 70 | ECG195A | --- | RF Pwr Amp, Driver | 1.5 | 8 | 30 min | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120/90 | 80 | ECG128 | ECG129 | Gen Purp | 1 | 1 | 90 min | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 80 | ECG2347 | --- | Hi Current, Sw $t_f = .3 \mu\text{s}$ (typ) | 4 | 1 | 40 min | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 100 | ECG324 | ECG323 | Gen Purp | 2 | 1 | 50 min | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 300 | 300 | ECG154 | --- | HV Gen Purp, Amp | .5 | 1 $T_A 25^\circ\text{C}$ | 60 typ | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 450/350 | 350/300 | ECG396 | ECG397 | HV Pwr Amp, Sw | 1 | 10 | 60 typ | 15 min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | 15 | --- | ECG106 | Gen Purp-Hi Freq, Amp | 75 mA | .25 | 20 min | 500 | | TO-18 Fig. T2   Collector Tied To Case | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75 | 40 | ECG123A | --- | Gen Purp, Amp, Sw | .8 | .5 | 200 typ | 300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 15 | ECG316 | --- | UHF Amp, Lo Noise | 50 mA | .2 | 25 min | 1400 | TO-72 Fig. T4   | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 25 | --- | ECG395 | UHF/VHF Amp | 50 mA | .36 | 25 min | 2.3 GHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | 45 | ECG161 | --- | Gen Purp-Hi Freq, Amp | 50 mA | .18 | 60 typ | 800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | 18 | ECG340 | --- | Gen Purp, RF Pwr | .5 | .75 | 70 typ | --- | T-16 Fig. T20   | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 50 | ECG293 | ECG294 | Gen Purp, Pwr Amp | 1 | 1 H Sink .75 $T_A 25^\circ\text{C}$ | 120 min | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 80 | ECG297 | ECG298 | Gen Purp, Pwr Amp | 1 peak | .75 | 130 min | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 300 | 300 | ECG399 | --- | Video Output, Horiz Dr | .1 | .9 | 100 min | 50 min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | 50 | ECG315 | --- | RF Driver | 1 | .75 | 200 typ | 80 | SC-51 Fig. T19   | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 50 | ECG48 | --- | Gen Purp Amp-Darlington | 1 | 1 | 25,000 | 100 min | TO-92M Fig. T18   <table border="1" data-bbox="1388 1407 1526 1648"> <tr><td>ECG</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>31</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>32</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>48</td><td>E</td><td>B</td><td>C</td></tr> <tr><td>90</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>91</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>382</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>383</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>2363</td><td>E</td><td>C</td><td>B</td></tr> <tr><td>2364</td><td>E</td><td>C</td><td>B</td></tr> </table> | ECG | 1 | 2 | 3 | 31 | E | C | B | 32 | E | C | B | 48 | E | B | C | 90 | E | C | B | 91 | E | C | B | 382 | E | C | B | 383 | E | C | B | 2363 | E | C | B | 2364 | E | C | B |
| ECG | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 48 | E | B | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 91 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 382 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 383 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2363 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2364 | E | C | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 50 | ECG2363 | ECG2364 | Gen Purp Amp | 2 | 1 | 200 min | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 100 | ECG382 | ECG383 | Gen Purp | 1 | .9 $T_A = 25^\circ\text{C}$ | 200 typ | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 120 | ECG90 | ECG91 | HV Hi Gain Amp | 50 mA | .75 | 400 min | 150 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 160 | 160 | ECG31 | ECG32 | AF Driver Output | 1 | .9 $T_A = 15^\circ\text{C}$ | 100 min | 15 min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Package Outlines - See Page 1-78